

**DIRECT TESTIMONY OF**  
**AARON P. ABRAMOVITZ, JEREMIAH C. HASWELL, AND JOHN B. WILLIAMS**  
**IN SUPPORT OF GEORGIA POWER COMPANY’S**  
**APPLICATION TO ADJUST RATES TO INCLUDE REASONABLE AND PRUDENT**  
**PLANT VOGTLE UNITS 3 AND 4 COSTS**

**DOCKET NO. 29849**

## I. INTRODUCTION

**Q. PLEASE STATE YOUR NAMES, TITLES, AND BUSINESS ADDRESSES.**

A. My name is Aaron P. Abramovitz. I am the Executive Vice President, Chief Financial Officer, and Treasurer for Georgia Power Company (“Georgia Power” or the “Company”). My business address is 241 Ralph McGill Boulevard N.E., Atlanta, Georgia 30308.

My name is Jeremiah C. Haswell. I am the Project Oversight Director at Georgia Power.  
My business address is 241 Ralph McGill Boulevard, N.E., Atlanta, Georgia 30308.

My name is John B. Williams. I am the Southern Nuclear Operating Company (“Southern Nuclear”) Vice President of Business Operations for Plant Vogtle Units 3 and 4 (the “Project”). My business address is 7825 River Road, Waynesboro, Georgia 30830.

**Q. MR. ABRAMOVITZ, PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.**

A. I graduated from the University of Georgia with a Bachelor of Business Administration in Finance and Management Information Systems. I joined Southern Company as a contractor in the Financial Strategy and Decision Support organization. This was followed by a series of Financial Analyst roles in various disciplines that included Financial Planning, Financial Analysis, and Regulatory Support. From there I transitioned to Georgia Power to serve as the Coordinator for Forestry and Right of Way services. In 2008, I was assigned to the

1 Kemper Project in Mississippi, where I served in financial leadership roles of increasing  
2 responsibility, eventually serving as the Project's Finance Director, where I was  
3 responsible for governance, reporting, regulatory support, and communications to  
4 Executives and the Board of Directors. In 2015, I returned to Atlanta to serve as the  
5 Director of Investor Relations for Southern Company, where I was responsible for  
6 Southern Company's communications and relationships with the investment community.  
7 In 2018, I was named the Southern Nuclear Vogtle Units 3 and 4 Vice President of Business  
8 Operations. In this role, I had responsibility for Southern Nuclear's Project Controls, Risk  
9 Management, Budgeting and Reporting, and Commercial Analysis & Controls. I moved to  
10 my current role as Executive Vice President, Chief Financial Officer, and Treasurer for  
11 Georgia Power in September 2021. I now oversee all accounting and finance functions for  
12 the Company including financial reporting, regulatory accounting, financial planning,  
13 analysis, and enterprise risk management.

14 **Q. MR. ABRAMOVITZ, HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE**  
15 **GEORGIA PUBLIC SERVICE COMMISSION ("COMMISSION")?**

16 A. Yes. I testified in the Vogtle Construction Monitoring ("VCM") proceeding, Docket No.  
17 29849, regarding the Nineteenth, Twentieth/Twenty-first, Twenty-second, Twenty-third,  
18 and Twenty-fourth Semi-annual VCM Reports; the Plant Vogtle Unit 3 and Common Rate  
19 Adjustment proceeding in Docket No. 43838 ("Unit 3 Rate Adjustment"); and the  
20 Company's 2022 base rate case proceeding in Docket No. 44280 ("2022 Rate Case").

21 **Q. MR. HASWELL, PLEASE SUMMARIZE YOUR EDUCATION AND**  
22 **PROFESSIONAL EXPERIENCE.**

23 A. I graduated from the University of Alabama at Birmingham with a Bachelor of Science  
24 degree in Mechanical Engineering and a Master of Science degree in Civil Engineering  
25 (Construction Management focus). I completed a Master of Business Administration at  
26 Augusta University and am a licensed Professional Engineer. I joined Southern Company

1 as an Engineer in Southern Company Services Research and Technology Management  
2 focusing on new technology deployment in the existing operating fleet. I held multiple  
3 Team Leader roles in the areas of Maintenance, Engineering, and Compliance at Alabama  
4 Power Company's Plant Gorgas. In 2012, I moved to Plant Vogtle Units 3 and 4 in the  
5 Construction Compliance organization and later to the role of Construction Compliance  
6 Supervisor for the Turbine Island and Balance of Plant. I am currently the Project Oversight  
7 Director with responsibility for regulatory filings for the Project, compliance with Georgia  
8 Power's loan guarantee with the Department of Energy ("DOE"), Project oversight, risk  
9 management, and lead interface with the Commission Public Interest Advocacy Staff  
10 ("PIA Staff"), Construction Monitor, and the other Project Owners (Oglethorpe Power  
11 Corporation, the Municipal Electric Authority of Georgia, and Dalton Utilities, through the  
12 Board of Water, Light and Sinking Fund Commissioners of the City of Dalton)  
13 (collectively, the "Co-Owners").

14 **Q. MR. HASWELL, HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE**  
15 **COMMISSION?**

16 A. Yes. I testified in Docket No. 29849 regarding the Thirteenth, Fourteenth, Fifteenth,  
17 Seventeenth, Eighteenth, Nineteenth, Twentieth/Twenty-first, Twenty-second, Twenty-  
18 third, Twenty-fourth, Twenty-fifth, Twenty-sixth, Twenty-seventh, and Twenty-eighth  
19 Semi-annual VCM Reports.

20 **Q. MR. WILLIAMS, PLEASE SUMMARIZE YOUR EDUCATION AND**  
21 **PROFESSIONAL EXPERIENCE.**

22 A. I graduated from the Georgia Institute of Technology with a bachelor's degree in nuclear  
23 and radiological engineering. I am currently the Vice President of Business Operations for  
24 Southern Nuclear Plant Vogtle Units 3 and 4. I joined Southern Nuclear in 2005 and have  
25 more than 20 years of engineering and nuclear fuel experience and have served in several  
26 leadership positions throughout the Southern Nuclear organization, including Plant Hatch

1 Engineering Director, Nuclear Fuels and Analysis Director, and Interim Engineering Vice  
2 President.

3 I have represented Southern Nuclear on the DOE Industry Advisory Boards for the  
4 Advanced Fuels Campaign and the Nuclear Energy Advanced Modeling and Simulation  
5 program. I have also served as the utility lead for the Nuclear Energy Institute's ("NEI")  
6 Accident Tolerant Fuel Working Group's Licensing and Safety Benefits Task Force,  
7 leading the team that introduced the first Accident Tolerant Fuel into a commercial reactor  
8 at Plant Hatch in 2018 and Plant Vogtle in 2019.

9 **Q. MR. WILLIAMS, HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE**  
10 **COMMISSION?**

11 A. Yes. I testified in Docket No. 29849 regarding the Twenty-sixth, Twenty-seventh, and  
12 Twenty-eighth Semi-annual VCM Reports.

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

14 A. The purpose of our testimony is to support the Company's Application to Adjust Rates to  
15 Include Reasonable and Prudent Vogtle Units 3 and 4 Costs ("Application") submitted in  
16 this docket on August 30, 2023, as well as the Stipulation reached on August 29, 2023. The  
17 Application and this testimony are filed to implement the Commission's January 11, 2018,  
18 Order on the Seventeenth Semi-Annual VCM Report in Docket No. 29849 ("VCM 17  
19 Order"), which provided that once fuel load for Unit 4 is reached, the Company may make  
20 a filing with the Commission to determine the adjustment to retail base rates necessary to  
21 include the remaining amounts for Units 3 and 4 into retail rate base. During review of this  
22 Application, the Commission will determine the remaining issues pertaining to the  
23 prudence of costs incurred on Vogtle Units 3 and 4. Our testimony is consistent with the  
24 Commission's intent and directives as stated in the VCM 17 Order, the Commission's  
25 January 3, 2017, Supplemental Information Review ("SIR") Order Adopting Stipulation in  
26 Docket No. 29849 ("SIR Final Order"), and the Commission's November 15, 2021, Order

1 Adopting Stipulation in Docket No. 43838 regarding Georgia Power's Application to  
2 Adjust Rates to Include Certain Plant Vogtle Unit 3 and Common Costs ("Unit 3 Rate  
3 Adjustment Order").

4 **Q. DESCRIBE THE STIPULATION BETWEEN PIA STAFF, THE COMPANY, AND**  
5 **INTERVENORS IN THIS CASE.**

6 A. On August 29, 2023, Georgia Power, PIA Staff, the Georgia Association of Manufacturers,  
7 Georgia Interfaith Power & Light, Georgia Watch, and Partnership for Southern Equity  
8 (the "Stipulating Parties") signed a stipulated agreement resolving all remaining issues for  
9 determination by the Commission regarding the reasonableness, prudence, and cost  
10 recovery for the remaining costs associated with the Project ("Stipulation"). The  
11 Stipulating Parties agreed that \$7.562 billion is a reasonable and prudent *total* construction  
12 and capital cost for the Project to be included in rate base. The agreed-to reduction from  
13 Georgia Power's total construction and capital cost takes into consideration the length of  
14 time to construct the Project, replacement energy costs incurred during the extended  
15 construction time, and other issues such as the amount of rework required, scheduling of  
16 activities, testing, and productivity. The Stipulation addresses the cost recovery of  
17 financing costs, projected operation and maintenance ("O&M") expenses, depreciation  
18 expense, nuclear decommissioning accrual, and property taxes, net of projected production  
19 tax credits ("PTCs"), as well as nuclear fuel plant and materials and supplies inventory.  
20 The Stipulation also addresses the cessation of the Nuclear Construction Cost Recovery  
21 ("NCCR") tariff and what happens if the Units do not initially operate as intended, among  
22 other things.

23 The Company supports the Stipulation as a fair and reasonable resolution of the outstanding  
24 issues regarding cost recovery for Vogtle Units 3 and 4. As with any settlement, no single  
25 party received everything it sought as a proposed resolution. The Stipulation considers  
26 many of the issues raised by PIA Staff and Intervenor in the VCM proceedings throughout  
27 the life of the Project. The Stipulating Parties worked hard to look beyond single issues to

1 reach an agreement. The resulting Stipulation strikes an appropriate balance among  
2 complex, technical issues and provides for the recovery of reasonable and prudent costs for  
3 the Project.

4 **Q. PLEASE SUMMARIZE THE COMPANY’S REQUEST IN THIS CASE.**

5 A. In compliance with the VCM 17 Order, the SIR Final Order, and the Unit 3 Rate  
6 Adjustment Order, the Company seeks Commission approval of the following requests:

- 7 • Find the Stipulation to be reasonable and in the best interest of customers;
- 8 • Find a total construction and capital cost for Vogtle Units 3 and 4 of \$7.562 billion  
9 to be reasonable and prudent and approve the additional transfer of \$5.462 billion  
10 (\$7.562 billion less \$2.1 billion already reflected in base rates) into the Company’s  
11 rate base upon Vogtle Unit 4 achieving Commercial Operation;
- 12 • Approve the recovery in rate base of the associated Allowance for Funds Used  
13 During Construction (“AFUDC”) financing costs on the construction and capital  
14 cost above the \$4.418 billion certified cost up to the requested \$7.562 billion, which  
15 is estimated to be approximately \$437 million;
- 16 • Approve the recovery in retail base rates of depreciation expense, projected O&M  
17 expenses, nuclear decommissioning accrual, and property taxes, net of the  
18 projected production tax credits, as reflected in the Company’s Minimum Filing  
19 Requirements (“MFRs”);
- 20 • Approve the recovery of projected nuclear fuel plant and materials and supplies  
21 inventory in rate base as reflected in the MFRs, as well as the deferred interest on  
22 nuclear fuel;

- 1 • Approve the recovery in retail base rates of any deferred depreciation and deferred  
2 financing related to Unit 3 and Common facilities accumulated since Unit 3 was  
3 placed in service;
- 4 • Approve the transfer to rate base of the regulatory assets related to the deferred  
5 depreciation and deferred financing of Unit 3 and Common facilities accrued since  
6 Unit 3 was placed in service and the deficient accumulated deferred income taxes  
7 (“ADITs”) associated with Vogtle Units 3 and 4 resulting from the Tax Cuts and  
8 Jobs Act (“TCJA”);
- 9 • Consistent with O.C.G.A. § 46-2-25(c), approve the continued collection of  
10 financing costs through the NCCR tariff until the effective date of the Unit 3 and 4  
11 rate adjustment, at which point such financing costs would be collected through the  
12 Company’s general revenue requirements in retail base rates;
- 13 • Adjust retail base rates by \$729 million on an annual basis effective the first month  
14 following Vogtle Unit 4 achieving Commercial Operation; and
- 15 • Following the final order in this Docket, approve the tariffs designed to collect the  
16 retail base rate adjustment.

17 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

18 A. The remainder of our testimony is organized as follows:

- 19 • Section II outlines the overview of the Company’s request for cost recovery.
- 20 • Section III discusses the prudence and reasonableness of the total construction and  
21 capital cost for the Project based on the following:
  - 22 ○ Total construction and capital cost projected to be incurred (\$10.188 billion)

- Total reasonable construction and capital cost recoverable from customers (\$8.826 billion)
- Total construction and capital cost stipulated to be recovered (\$7.562 billion)
- Section IV discusses the financing costs the Company seeks to add to rate base and the treatment of the NCCR tariff.
- Section V discusses the operating expenses the Company seeks to include in rate base.
- Section VI discusses replacement fuel costs.
- Section VII discusses the appropriate retail base rate adjustments to recover the Vogtle Units 3 and 4 costs.
- Section VIII discusses Commercial Operation.
- Section IX discusses additional provisions agreed to by the Stipulating Parties.

## **II. OVERVIEW**

### **Q. WHAT HAS BEEN THE COMPANY’S NUMBER ONE PRIORITY WITH THE PROJECT?**

A. Since the Project’s inception, safety has been the number one priority in the design and construction of Vogtle Units 3 and 4. Throughout construction, the Project maintained an OSHA Recordable Incidence Rate below the heavy construction industry average. Also, throughout construction of the Project, the Company has been inspected under the Nuclear Regulatory Commission’s (“NRC”) Construction Reactor Oversight Process – an in-depth oversight and review process that enables the NRC to confirm the reactors are built according to NRC design and allows the NRC to objectively evaluate Southern Nuclear’s

effectiveness in assuring construction quality while communicating performance assessment results to the public. As discussed in the Application and numerous VCM proceedings, the Company ensured that the priorities of safety, quality, and compliance were never outweighed by factors such as cost or schedule. As the Units transition to operation, safety and quality will remain the top priority, consistent with Southern Nuclear and Georgia Power's industry-leading operational standards.

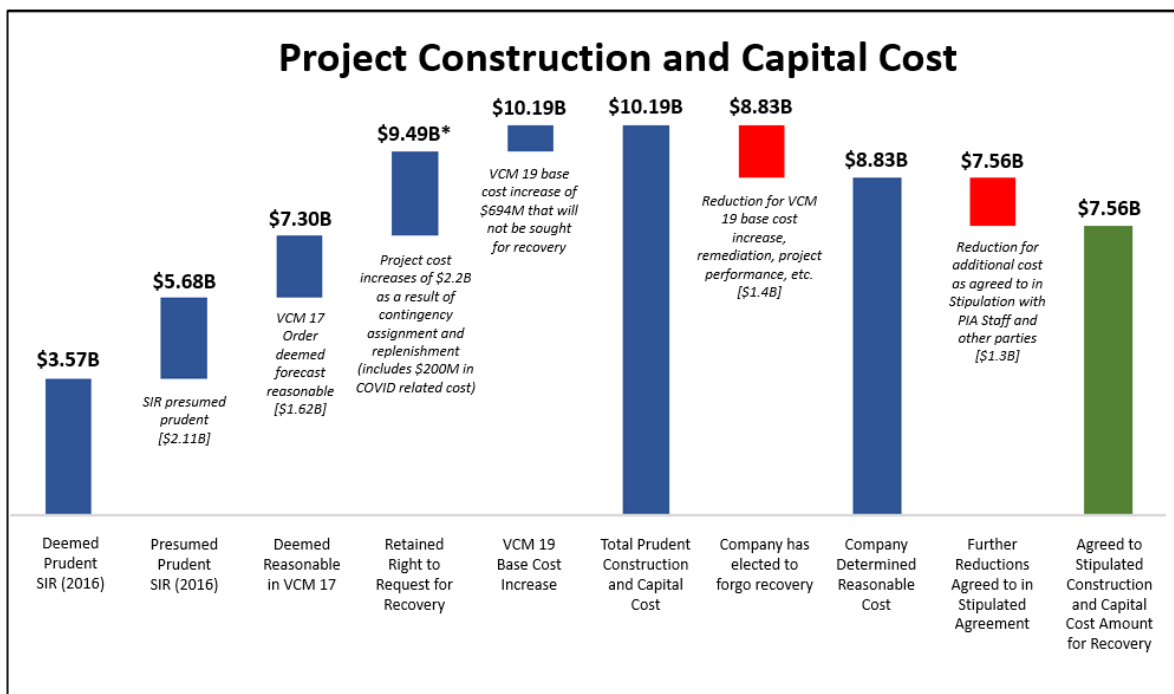
**Q. PLEASE DESCRIBE THE VOGTLE UNITS 3 AND 4 COSTS THE COMPANY IS SEEKING TO RECOVER.**

A. Georgia Power requests recovery of the reasonable and prudent construction and capital cost, financing costs, and operating costs associated with the completion of Vogtle Units 3 and 4 and Common facilities. While all the costs incurred to complete Vogtle Units 3 and 4 were prudent and reasonable, the Company decided to forego recovery of some costs from customers. As shown in Georgia Power's Application, the Company supports that \$8.826 billion in total construction and capital cost is reasonable to recover from customers. However, as stated in the Stipulation, the Company, PIA Staff, and the other Stipulating Parties have agreed that the Company is requesting to recover \$7.562 billion in total construction and capital cost, along with the accompanying AFUDC financing costs and operating costs, among other things. Georgia Power is seeking recovery of \$2.626 billion less than the Company's projected total construction and capital cost for the Project.

Figure 1 below is a graphical representation of the Project costs and the portions of those costs already found to be reasonable or prudent, what amount the Company elected to forego recovery of from customers, and what amount was agreed to in the Stipulation to be recovered from customers.

1

**Figure 1: Total Project Construction and Capital Cost**



\* Excludes Co-Owner sharing and tender

2

3

4

5

6

7

8

9

10

Table 1 below takes into account the amounts agreed to in the Stipulation and summarizes the Company's request of total construction and capital, financing, and operating costs for Vogtle Units 3 and 4. Table 1 represents the *total* Project costs for which Georgia Power seeks a Commission finding of reasonableness and prudence. As approved in the Unit 3 Rate Adjustment Order, \$2.1 billion of the \$7.562 billion is already being recovered in current rates for Unit 3 and Common construction and capital cost along with Unit 3 operating costs. For this proceeding, the base rate increase requested only reflects the *incremental* costs not reflected in current rates.

**Table 1: Summary of Request<sup>1</sup>**

| <b>Capital Cost Requested for Recovery</b> | <b>Amount (millions)<br/>13-Month Average</b> |
|--------------------------------------------|-----------------------------------------------|
| Construction and Capital Cost              | \$7,562                                       |
| AFUDC Financing Costs                      | 437                                           |
| (less) Capital Accumulated Reserve         | (131)                                         |
| Nuclear Fuel (net of Accumulated Reserve)  | 232                                           |
| Regulatory Assets                          | 215                                           |
| Spare Parts Inventory                      | 54                                            |
| Accumulated Deferred Income Taxes          | 212                                           |
| <b>Total</b>                               | <b>\$8,580</b>                                |

Note – Details may not add to total due to rounding.

| <b>Operating Expense Requested for Recovery</b> | <b>Amount (millions)</b> |
|-------------------------------------------------|--------------------------|
| O&M Expense                                     | \$155                    |
| Depreciation Expense                            | 134                      |
| Property Taxes                                  | 58                       |
| Nuclear Decommissioning                         | 15                       |
| Regulatory Assets Amortization                  | 23                       |
| (less) Production Tax Credits                   | (137)                    |

**Q. WHY IS IT APPROPRIATE FOR CUSTOMERS TO PAY FOR THE COSTS ASSOCIATED WITH VOGTLE UNITS 3 AND 4?**

A. Upon Commercial Operation, Unit 4 will be placed into service and join Unit 3 in operations for the benefit of Georgia Power's retail customers. With Units 3 and 4 in commercial service as used and useful, the cost to construct, finance, and operate Units 3 and 4 are reasonable and prudent costs incurred by the Company to serve customers and are appropriate costs to be recovered from customers.

---

<sup>1</sup> All dollars represent Georgia Power's share of Project costs.

1 **Q. HOW WILL GEORGIA POWER'S CUSTOMERS BENEFIT FROM UNITS 3**  
2 **AND 4 GOING INTO SERVICE?**

3 A. At Georgia Power, customers are at the center of everything we do, and we are unwavering  
4 in our commitment to meet the energy needs of our 2.7 million customers and the  
5 communities we are privileged to serve. Vogtle Units 3 and 4 will add two reliable, carbon-  
6 free, baseload units to the Georgia Power generation fleet and will serve Georgia Power  
7 customers for the next 60 to 80 years. Notwithstanding the high upfront capital costs,  
8 nuclear energy remains one of the lowest-cost and most reliable energy sources for our  
9 state and our customers. Vogtle Units 3 and 4 will provide necessary baseload energy for  
10 our customers along with fuel diversity to help protect customers from unpredictable  
11 fluctuations in fuel prices. Once completed, Vogtle Units 1 through 4 are expected to  
12 produce more carbon-free electricity each year than any other energy facility currently  
13 operating in the United States.

14 **Q. WHAT ARE THE BENEFITS TO THE STATE OF GEORGIA FROM UNITS 3**  
15 **AND 4 GOING INTO SERVICE?**

16 A. As Georgia's economy and population continue to grow and thrive, Vogtle Units 3 and 4  
17 will be critical to Georgia Power's ability to continue meeting the evolving energy needs  
18 of customers and this state. Georgia is one of the fastest growing states in the country,  
19 driven in large part by Georgia's position as one of the best states in the nation in which to  
20 do business. The addition of these Units will provide businesses and industries with the  
21 confidence to stay, expand, or locate in our state, which will help ensure Georgia's  
22 economy continues to grow.

23 Georgia Power engaged NEI to analyze the economic impact of the Project and to help  
24 illustrate the numerous benefits of the Project to the state. A copy of the NEI Study is  
25 provided as Exhibit 1 to this testimony. The NEI Study estimates that from 2009 through  
26 March 2023, construction of Vogtle Units 3 and 4 supported an average of nearly 16,800

1 direct and secondary jobs in Georgia alone and created significant economic benefits for  
2 the state: \$46.9 billion in economic benefit from construction; \$27.2 billion increase in  
3 gross state product; and \$31 billion in disposable personal income. The Project produced  
4 benefits outside the state of Georgia as well, supporting an average of more than 4,300 jobs  
5 annually during the same time period, and \$17.9 billion in economic benefit from  
6 construction for the rest of the country. Once both Units are operational, the Project will  
7 provide more than 800 permanent jobs to the local community and provide an average  
8 annual economic benefit of \$2.5 billion.

9 In support of a growing Georgia, the new Vogtle Units play a vital role in meeting  
10 customers' evolving expectation that a larger portion of their energy needs be served by  
11 carbon-free, emission-free energy. Nuclear units like Vogtle 3 and 4 generate large  
12 amounts of electricity without emitting greenhouse gases and are an essential source of  
13 safe, reliable electricity that meets both environmental needs and the demand for  
14 electricity. Vogtle Units 3 and 4 are expected to generate over 281 million megawatt-hours  
15 and avoid more than 103 million metric tons of carbon dioxide by 2057. The Project has  
16 and will provide significant economic benefits for the state and will provide substantial  
17 carbon-free energy with low fuel costs throughout the life of the Units.

18 **III. PRUDENCE AND REASONABLENESS OF PROJECT CONSTRUCTION AND**  
19 **CAPITAL COST**

20 **A. Standard for Cost Recovery**

21 **Q. WHAT COSTS CAN BE INCLUDED FOR RECOVERY FROM CUSTOMERS IN**  
22 **BASE RATES?**

23 A. The Company may recover costs incurred in the construction of the Project in base rates if  
24 they are found to be both *prudent* and *reasonable*. We are here to testify regarding the  
25 decisions and actions that make these costs appropriate for recovery.

1     **Q.     WHAT IS THE STANDARD FOR PRUDENCY, AS YOU UNDERSTAND IT?**

2     A.     We understand that the prudence standard in Georgia evaluates whether decisions and  
3           actions were reasonable under the circumstances, given the facts and circumstances  
4           that were known or should have been known at the time the decision was made,  
5           without the benefit of hindsight. Essentially, this standard asks the Commission to put  
6           itself in the shoes of the Vogtle Project managers at the time critical decisions were  
7           being made, and ask itself “what would a reasonable manager have done, and was  
8           what the Vogtle Project managers did within an acceptable zone of reasonableness?”  
9           In addition to what has been conveyed to this Commission through the VCM process  
10          and through the Application, we are here to testify as to the prudence of the decisions  
11          and actions on the Project for which costs were incurred and are sought for recovery.

12    **Q.     WHAT STANDARD OF CARE IS APPLIED WHEN EVALUATING**  
13    **PRUDENCY?**

14    A.     When evaluating prudence, the “reasonable manager” standard of care is applied.  
15           Under this standard, decisions are assessed based on what a reasonable manager would  
16           have done under the same or similar circumstances. Given this standard, a reasonable  
17           manager is one who is qualified by education, training, and experience to make the  
18           decision or take the action, using the information available and applying logical  
19           reasoning processes.

20           Witnesses Miller and Skaggs have submitted testimony as to the reasonable manager  
21           standard based on their industry experience, including their time as executives at Duke  
22           Energy and Tennessee Valley Authority (“TVA”), respectively.

23    **Q.     WHAT IS THE STANDARD FOR REASONABLENESS?**

24    A.     As we understand it, reasonableness goes to the cost associated with prudent decisions  
25           and comes into play when a utility seeks to add costs over the certified amount to rate

1 base. The Company must not only establish that the costs above the certified amount  
2 are the product of prudent decision-making, but also demonstrate that the amounts of  
3 those costs are reasonable. In other words, while the decision to incur a certain cost  
4 may have been prudent, the amount of that cost may be excessive or unreasonable and  
5 therefore not appropriately chargeable to customers.

6 **Q. WHAT STANDARD OF CARE IS APPLIED WHEN EVALUATING**  
7 **REASONABLENESS?**

8 Reasonableness, like prudence, is also satisfied by the reasonable manager standard of  
9 care. As discussed above, the testimony of witnesses Miller and Skaggs will discuss  
10 the reasonable manager standard as it applies to prudence and reasonableness based  
11 on their extensive industry experience.

12 **B. Total Construction and Capital Cost Projected to be Incurred**

13 **Q. WHAT IS GEORGIA POWER'S SHARE OF THE TOTAL PROJECT COST?**

14 A. As of the Company's VCM 29 filing, Georgia Power's projected total Project construction  
15 and capital cost is expected to be \$10.188 billion, which includes \$33 million for PIA  
16 Staff's construction monitoring fees and after accounting for the Toshiba Parent Guaranty  
17 funds, net of customer refunds, which are applied to reduce the capital cost. As of June 30,  
18 2023, Georgia Power's total Project construction and capital cost was \$9.823 billion,  
19 including \$25 million expended for PIA Staff's construction monitoring fees and after  
20 accounting for the Toshiba Parent Guaranty funds.

21 **Q. DOES THE PROJECTED TOTAL CONSTRUCTION AND CAPITAL COST**  
22 **OR ACTUAL CONSTRUCTION AND CAPITAL COST INCURRED TO**  
23 **DATE INCLUDE COSTS ASSOCIATED WITH THE COST-SHARING AND**  
24 **TENDER PROVISIONS WITH THE CO-OWNERS?**

1 A. No. The \$10.188 billion projection excludes approximately \$407 million of costs  
2 associated with the cost-sharing and tender provisions of the joint ownership  
3 agreement for which Georgia Power will not seek recovery from retail customers. Of  
4 this estimated \$407 million, \$121 million was incurred as of June 30, 2023, related to  
5 Georgia Power's cost-sharing with Oglethorpe Power Corporation and Dalton Utilities  
6 and the September 29, 2022, settlement agreement with Municipal Electric Authority  
7 of Georgia ("MEAG") Power.

8 **Q. IS THE CONSTRUCTION AND CAPITAL COST INCURRED BY THE**  
9 **COMPANY PRUDENT AND REASONABLE?**

10 A. Yes. All construction and capital cost incurred to date on Units 3 and 4 were prudently and  
11 reasonably incurred. All costs incurred on the Project to date were necessary to complete  
12 construction and bring Units 3 and 4 online and in service for Georgia Power's customers.

13 C. **Total Reasonable Construction and Capital Cost Recoverable from**  
14 **Customers**

15 **Q. IS THE COMPANY REQUESTING RECOVERY OF ALL ITS PRUDENT AND**  
16 **REASONABLE PROJECTED TOTAL CONSTRUCTION AND CAPITAL COSTS**  
17 **FROM CUSTOMERS?**

18 A. No. Of the \$10.188 billion in total construction and capital cost that the Company expects  
19 to incur, the Company has put forth the necessary support in its prudence request to justify  
20 the reasonableness, prudence, and recovery of \$8.826 billion in total construction and  
21 capital cost. As described in the Application, the Company elected to forego recovery of  
22 \$1.362 billion in reasonable and prudent construction and capital cost incurred to bring  
23 Vogtle Units 3 and 4 through construction, testing, startup and into operations to serve our  
24 2.7 million customers. This amount includes the \$694 million in increased projected total  
25 Project costs the Company stated in VCM 19 that it would not seek to recover from  
26 customers following the cost reforecast conducted in 2018. Importantly, as we will discuss

1 later in our testimony, in total and as a part of the Stipulation with the PIA Staff and other  
2 Stipulating Parties, Georgia Power has agreed to not request recovery of \$2.626 billion in  
3 construction and capital cost from customers.

4 **Q. IS THE COMPANY'S DECISION NOT TO REQUEST RECOVERY OF CERTAIN**  
5 **COSTS AN ADMISSION OF IMPRUDENCE?**

6 A. Absolutely not. The decision to forego recovery of certain costs is not an admission of  
7 imprudence or a declaration that such costs were unreasonable. While all the construction  
8 and capital cost incurred for Units 3 and 4 were both prudent and reasonable, as described  
9 further below, Georgia Power decided to forego seeking recovery of costs above \$8.826  
10 billion for the benefit of customers.

11 *Included Costs*

12 **Q. WHAT COSTS ARE INCLUDED IN THE \$8.826 BILLION THE COMPANY**  
13 **ESTIMATES IS REASONABLE AND PRUDENT TO RECOVER FROM**  
14 **CUSTOMERS?**

15 A. Georgia Power's Application and the VCM record support the reasonableness and  
16 prudence of \$8.826 billion of total Project construction and capital cost for Vogtle Units 3  
17 and 4. For the avoidance of doubt, the Company is not requesting Commission approval to  
18 recover \$8.826 billion – the Company is requesting recovery of the \$7.562 billion agreed  
19 to in the Stipulation. The Company presents the breakout of reasonable and prudent  
20 construction and capital cost included up to \$8.826 billion as additional support for the  
21 costs that are being requested for recovery. The construction and capital cost included  
22 within the \$8.826 billion are identified in Table 2 and described below were all reasonable  
23 and prudent costs necessary to complete the Project.

**Table 2: Reasonable and Prudently Incurred Costs Included in the \$8.826 Billion**

| <b>Cost</b>                                               | <b>Amount (millions)<sup>2</sup></b> |
|-----------------------------------------------------------|--------------------------------------|
| VCM 17 Previously Deemed Reasonable Amount                | \$7,293                              |
| COVID-19 Costs (Schedule and Mitigation)                  | \$200                                |
| Change in Scope                                           | \$142                                |
| Procurement of Materials and Equipment                    | \$105                                |
| Additional Engineering Resources (headcount and duration) | \$48                                 |
| Direct Construction Productivity/Performance              | \$413                                |
| Schedule Changes (non-COVID) Driven by Scope Increases    | \$517                                |
| Miscellaneous (Taxes, Regulatory Support Costs, and IT)   | \$75                                 |
| Construction Monitor                                      | \$33                                 |
| <b>Total</b>                                              | <b>\$8,826</b>                       |

**Q. PLEASE DESCRIBE THE COMPANY’S DECISION TO START WITH \$7.293 BILLION IN ITS DETERMINATION OF REASONABLE AND PRUDENTLY INCURRED COSTS.**

A. In VCM 17, the Commission approved the revised construction and capital cost forecast of \$7.3 billion and found that any costs spent up to the revised cost forecast were deemed reasonable. Through the VCM process, the Commission has verified and approved all expenditures up to the revised, approved construction and capital cost of \$7.3 billion and has reviewed, but not verified and approved, all expenditures above that amount. Considering the robust process and record created through the VCM process, it made sense to build the Company’s reasonable request by starting with the \$7.293 billion the Commission has already deemed reasonable.

**Q. WHAT COSTS ARE CAPTURED IN THE COVID-19 SCHEDULE AND MITIGATION COSTS?**

A. The impacts from the COVID-19 pandemic were the result of circumstances outside of the Company and the Project Team’s direct control. The Company acted prudently in its management of the COVID-19 pandemic and was able to keep the Project moving forward

---

<sup>2</sup> All dollars represent Georgia Power’s share of Project costs.

1 while keeping the safety of the workforce at the forefront of all decisions. The Company  
2 incurred approximately \$40 million in direct costs related to mitigation measures  
3 implemented to keep the workforce safe and healthy (e.g., onsite medical village, vaccines,  
4 testing, masking, hand sanitizer and cleaning stations). The Company also incurred  
5 approximately \$160 million in schedule impacts due to productivity challenges from  
6 higher-than-normal absenteeism for craft and non-manual personnel, social distancing  
7 requirements, and disruption to planned and ongoing work (direct construction,  
8 subcontracts, testing) due to mandatory isolation restrictions. Finally, the Project's  
9 estimated COVID costs also incorporate the impacts from the Project's reduction in force  
10 measures taken at the onset of the pandemic to create greater physical separation and less  
11 workspace congestion on site.

12 **Q. WHAT COSTS ARE REQUESTED RELATED TO CHANGE IN SCOPE?**

13 A. Following the Westinghouse Electric Company ("WEC") Bankruptcy and Southern  
14 Nuclear's transition to site leadership, it became clear that prior estimates for certain scopes  
15 of work were inadequately estimated. In response, Southern Nuclear routinely led  
16 walkdowns of the entire site to evaluate progress, status, and work to be completed, and  
17 used this information to reforecast the work scopes for Bechtel and other subcontractors to  
18 account for the differences observed. For example, the Company identified increases in  
19 civil construction, subcontractor, and unscheduled electrical commodity installation scope  
20 during the VCM 20/21 reporting period and again following a quantity verification effort  
21 during the May 2019 schedule re-baseline. Southern Nuclear also adjusted scope estimates  
22 for coatings and fireproofing, concrete and rebar commodity increases for building  
23 completion, instrumentation in the plant, and various commodity fabrication. The addition  
24 of quantities (scope) and corresponding manhours to complete the required scope for the  
25 Project is a reasonable and prudent cost necessary to complete the Project.

1 **Q. WHY IS IT APPROPRIATE FOR THE COMPANY TO RECOVER COSTS**  
2 **RELATED TO PROCUREMENT OF MATERIALS AND EQUIPMENT ABOVE**  
3 **WHAT WAS PREVIOUSLY DEEMED REASONABLE?**

4 A. Procurement needs varied greatly over the course of the Project. As the Project progressed,  
5 design specifications and field routing estimates changed, which resulted in revised  
6 procurement needs and cost estimates for additional materials and equipment. The  
7 estimated \$105 million in additional procurement costs were required to complete the  
8 Project and are prudent and reasonable costs to recover from customers.

9 **Q. WHAT COSTS ARE INCLUDED IN THE ADDITIONAL ENGINEERING**  
10 **RESOURCES CATEGORY?**

11 A. Additional engineering resources beyond those forecasted in VCM 17 were required to  
12 support documentation closeout for the Inspection, Test, Analysis, and Acceptance Criteria  
13 (“ITAAC”), Engineering Service Requests, and Non-Conformances among other  
14 requirements. The Project’s engineering estimates were adjusted, as needed, throughout  
15 the construction, testing, and startup process as more resources were required to ensure  
16 both Units would operate as designed, as well as to ensure successful completion of  
17 construction, documentation closure, and necessary testing. These costs are reasonable and  
18 prudent as they were necessary to ensure the plant was built in accordance with design and  
19 licensing basis requirements and would operate safely for the benefit of customers.

20 **Q. PLEASE DESCRIBE THE DIRECT CONSTRUCTION PRODUCTIVITY/**  
21 **PERFORMANCE COST CATEGORY.**

22 A. The Direct Construction Cost Performance Index (“CPI”) is relevant to Bechtel Direct  
23 Construction scope of work and measures the ratio of hours spent on an activity relative to  
24 hours earned. CPI is a measure of cost efficiency whereby a CPI above 1.0 indicates that  
25 the Project is spending more hours than planned to complete a task and a CPI below 1.0  
26 indicates that the Project is spending fewer hours than planned to complete a task. The

1 cumulative Bechtel Direct Construction CPI for the Project at the end of direct construction  
2 was approximately 1.66. The Project undertook several mitigation actions such as changing  
3 craft staffing levels, minimizing non-productive work, and improving first time quality in  
4 an effort to mitigate productivity challenges with the goal of achieving a CPI of closer to  
5 1.0. Southern Nuclear also conducted multiple craft productivity assessments and held site-  
6 wide staff stand downs related to productivity, production, and quality improvements.  
7 While performance was not consistent with the VCM 17 or 19 estimates, given the first of  
8 a kind nuclear construction for this Project and the evolution of the craft labor workforce,  
9 the incremental costs incurred for direct construction productivity and performance is  
10 reasonable and prudent.

11 **Q. PLEASE DESCRIBE THE NON-COVID SCOPE DRIVEN SCHEDULE CHANGE**  
12 **COSTS.**

13 A. As previously discussed, additional scope for civil construction and unscheduled electrical  
14 commodity installation was added to the Project after Southern Nuclear took over site  
15 leadership. As the schedule was extended to account for these increases in scope, the  
16 Project Team faced increases in cost that were dependent on the time added to the schedule  
17 as well as external factors in the economy that increased labor rates, such as competition  
18 and availability of skilled resources. Simply put, when more work needs to be done than  
19 originally planned, it takes more time to complete the work and, in turn, costs more to keep  
20 the right people on site to complete the work. The increases in manhours and time to  
21 complete were necessary for completion of the scope changes, and the costs associated  
22 with these scope-driven schedule changes are reasonable and prudent.

23 **Q. WHAT COSTS FALL INTO THE MISCELLANEOUS CATEGORY?**

24 A. This cost category includes costs for local Ad Valorem tax assessments as the installed cost  
25 of the Project increased, regulatory support cost increases, and Information Technology  
26 (“IT”) infrastructure cost increases. These cost increases are the time-related cost from Ad

1 Valorem tax being capitalized and regulatory support resources being utilized for a longer  
2 period of time that are associated with the other reasonable and prudent costs previously  
3 described above and are reasonable and prudent ancillary costs to complete the Project.

4 **Q. ARE THE CONSTRUCTION MONITORING COSTS REASONABLE AND**  
5 **PRUDENT?**

6 A. Yes. In fact, the VCM 19 Stipulation approved by the Commission provided that the annual  
7 allowance for Construction monitoring is reasonable and prudent and not charged against  
8 or assumed to be within the \$7.3 billion previously deemed reasonable in VCM 17.

9 *Excluded Costs*

10 **Q. WHAT COSTS WERE EXCLUDED FROM THE COMPANY'S CALCULATION**  
11 **OF THE \$8.826 BILLION CONSTRUCTION AND CAPITAL COST?**

12 A. The Company and Southern Nuclear conducted a review of expenditures, and the Company  
13 decided to forego requesting recovery from customers for certain Project costs. The  
14 reasonable and prudent construction and capital cost incurred on the Project that are not  
15 included in the \$8.826 billion identified by the Company are included in Table 3 and  
16 described below.

**Table 3: Excluded Cost Categories**

| <b>Cost</b>                                                 | <b>Amount (millions)<sup>3</sup></b> |
|-------------------------------------------------------------|--------------------------------------|
| VCM 19 Reforecast                                           | \$694                                |
| Schedule Changes                                            |                                      |
| Rework Driven (Electrical and Inspection Record Backlog)    | \$165                                |
| Rework                                                      |                                      |
| Electrical Quality Issues (IEEE 384) <sup>4</sup>           | \$8                                  |
| Inspection Records Backlog                                  | \$22                                 |
| Construction work performed before Bechtel                  | \$12                                 |
| Penetration Seal Breaches and Re-seals                      | \$2                                  |
| Non-Segregated Busbar Rework/Redesign                       | \$21                                 |
| Valve rework                                                | \$11                                 |
| Extraction steam piping rework                              | \$4                                  |
| Other tracked rework items identified by Staff or GPC       | \$22                                 |
| Project Performance Costs Above Best Sustained Productivity | \$319                                |
| Lost and Damaged Items                                      | \$28                                 |
| Miscellaneous – Testing Support Labor & Other               | \$54                                 |
| <b>Total</b>                                                | <b>\$1,362</b>                       |

2   **Q.     PLEASE EXPLAIN THE COMPANY’S DECISION NOT TO REQUEST COSTS**  
3   **RELATED TO THE VCM 19 REFORECAST.**

4   A.     In the VCM 19 reforecast, Georgia Power’s projected share of the total cost increased from  
5         \$7.3 billion to \$8.4 billion. This increase of approximately \$1.1 billion included \$694  
6         million in base capital forecast and a Project contingency estimate of \$366 million. The  
7         Company determined that it was in the best long-term interests of customers, investors, and  
8         other stakeholders to maintain Project momentum by electing not to seek approval of the  
9         base capital cost increase so soon after receiving Commission approval in the VCM 17  
10        Order to continue with the Project. Consistent with Georgia Power’s position since VCM  
11        19, the Company is not requesting recovery of the \$694 million in base capital cost increase  
12        that resulted from the VCM 19 reforecast.

---

<sup>3</sup> All dollars represent Georgia Power’s share of Project costs.

<sup>4</sup> IEEE stands for the Institute of Electrical and Electronics Engineers.

1     **Q.     PLEASE EXPLAIN THE CHALLENGES WITH REWORK ON THE PROJECT.**

2     A.     A certain amount of rework and remediation is normal and expected on a project the size  
3           of Vogtle Units 3 and 4. As discussed in detail in the Application, there were several  
4           instances in which rework was greater than anticipated, even on a project of this size.  
5           Rework on the Project was driven in part by the workforce's limited experience with the  
6           nuclear design requirements for the Project and the Project's transition through multiple  
7           contractors, among other factors. In addition, the Company proceeded with construction of  
8           the Units under the NRC's new Part 52 licensing process and new modularization approach  
9           to nuclear plant construction. As the Project moved through construction on Unit 3,  
10          Southern Nuclear was nonetheless able to apply lessons learned from rework required on  
11          Unit 3 to minimize the amount of rework required for Unit 4. For example, the rework  
12          required because of the spent fuel pool leak and resulting repairs, as well as the rework  
13          associated with the IEEE 384 cable separation issues, all fall into the category of rework  
14          over and beyond what was anticipated, and the Company is not seeking recovery for these  
15          costs.

16    **Q.     WHY HAS THE COMPANY MADE THE DECISION TO NOT SEEK CERTAIN**  
17    **REWORK ITEMS?**

18    A.     As stated previously, while there is a certain amount of rework anticipated on a  
19           megaproject like Vogtle Units 3 and 4, the amount experienced on the Project was larger  
20           than expected. While the Company believes that all the costs to remediate work on the  
21           Project were reasonable and prudently incurred, it has decided not to ask customers to bear  
22           such costs.

23    **Q.     PLEASE DESCRIBE THE REWORK-DRIVEN SCHEDULE CHANGE COSTS**  
24    **THAT THE COMPANY IS NOT SEEKING TO RECOVER.**

25    A.     In addition to costs directly associated with redoing work—for example, costs such as labor  
26           and equipment—rework also requires additional time in the schedule to re-complete

1 activities prior to continuing to later-sequenced activities already included in the schedule.  
2 For example, milestones were pushed to accommodate completion of rework to acceptable  
3 standards. In addition to delaying the completion of physical work on site, rework caused  
4 delays in closing ITAACs that were required to load fuel. At the time, the critical path for  
5 the Project was driven through ITAAC completion. Therefore, delays in rework for  
6 challenges such as the IEEE 384 electrical cable separation issues delayed ITAAC closure,  
7 which caused delays in progress to the critical path. Southern Nuclear's analysis on the  
8 delay associated with IEEE 384 remediation was the basis for the amounts captured by the  
9 "Rework Driven Schedule Change" costs.

10 To calculate the schedule-driven costs related to rework, Southern Nuclear identified items  
11 needing rework and had Bechtel and other subcontractors track and report the manhours  
12 spent on these rework tasks. The time to address the items requiring rework was then  
13 identified in the schedule as reflected in ITAAC milestones. The delay and cost associated  
14 with the identified rework was then calculated based on the time to complete the rework in  
15 the schedule.

16 **Q. WHY IS THE COMPANY NOT SEEKING RECOVERY OF THESE SCHEDULE-**  
17 **DRIVEN COSTS?**

18 A. As previously discussed, the schedule-driven delays resulted from the amount of time  
19 required to remediate items requiring rework. Although addressing these items was  
20 necessary to successfully meet the technical specifications and testing to bring the Units  
21 online, the Company is not seeking recovery of the costs associated with these schedule  
22 delays because of (1) the underlying causes of the rework and (2) the extensive schedule  
23 impacts it caused.

1 **Q. WHAT TYPES OF COSTS ARE INCLUDED IN THE CATEGORY OF**  
2 **“CONSTRUCTION WORK PERFORMED BEFORE BECHTEL?”**

3 A. Four construction contractors performed work on the Project, three of which preceded  
4 Bechtel’s tenure as primary contractor. Once onsite, Bechtel was better able to review work  
5 completed, or assumed completed, in their initial estimates. In some cases, this review  
6 identified necessary remediation of work previously completed by other contractors,  
7 including installation of electrical, concrete, rebar, and other commodities. Deficient  
8 construction costs such as these would have been included in the fixed price contract  
9 previously in effect under prior constructors. Post WEC bankruptcy, however, the costs to  
10 correct these issues had to be borne by the Company. These corrections were necessary to  
11 support the testing or technical specifications required to complete the Units as designed.

12 **Q. PLEASE EXPLAIN THE “PROJECT PERFORMANCE COSTS ABOVE BEST**  
13 **SUSTAINED PRODUCTIVITY” CATEGORY AND HOW IT WAS**  
14 **CALCULATED.**

15 A. As described previously, CPI is a cost efficiency measure calculated by determining the  
16 ratio of hours spent on an activity relative to the hours earned. A CPI greater than 1.0  
17 indicates that the Project spent more hours than planned to complete a task. After VCM 17,  
18 when Southern Nuclear took over responsibility for Project construction, Southern Nuclear  
19 analyzed historical performance measures on the Project after incorporating common unit  
20 rates in the project control tools and accounting for expected deviations in CPI that were  
21 documented in the Company’s VCM 17 Estimate to Complete and accompanying Cost and  
22 Schedule Assessment. In addition to the expected deviations in CPI, Southern Nuclear also  
23 analyzed comparative performance and productivity on Unit 4 compared to Unit 3 to  
24 establish improved performance to account for improvements in execution and lessons  
25 learned from the leading Unit. The Company calculated the difference between the best  
26 sustained productivity on the Project as seen through historical performance and other  
27 experienced productivity measures on Vogtle Units 3 and 4 to determine the Project cost

1 related to poor productivity. This difference is not being sought for recovery from  
2 customers.

3 **Q. WHY ARE LOST AND DAMAGED ITEMS EXCLUDED FROM THE**  
4 **COMPANY'S REQUEST?**

5 A. Lost and damaged material is a common component of a large and complex construction  
6 project. Vogtle Units 3 and 4 were not immune to this. On this Project, some of the lost or  
7 damaged materials had specific purposes and had to be replaced by materials that met the  
8 same design and quality requirements as the original. For example, after installation, level  
9 transmitters were damaged and had to be replaced and reinstalled to complete construction.  
10 Southern Nuclear tracked the material replacements and these costs are represented within  
11 this cost category. Considering the timing of some of the events and causes in which some  
12 of the lost and damaged items materialized, the Company decided to forego recovery of  
13 these costs.

14 **Q. WHAT TYPES OF COST FALL INTO THE MISCELLANEOUS CATEGORY OF**  
15 **COSTS?**

16 A. This cost category primarily includes staff labor hours for testing support. This support  
17 staff was mainly comprised of personnel from the maintenance organization and included  
18 contractors. The support staff tested systems and equipment, as well as performed  
19 operational testing.

20 **Q. WITH THESE CATEGORIES OF COSTS EXCLUDED, DOES THE COMPANY**  
21 **BELIEVE \$8.826 BILLION IN COSTS SHOULD BE RECOVERED FROM**  
22 **CUSTOMERS?**

23 A. Yes. Based on the Company's assessment of the total construction and capital cost incurred  
24 on the Project, the Company estimated that \$8.826 billion of prudent and reasonable costs  
25 should be recovered from customers and the Company should forgo \$1.362 billion in

1 prudently incurred construction and capital cost. The Company's Application, along with  
2 the record in this Docket No. 29849 established over the course of 14 years of VCM  
3 proceedings, supports the recoverability of \$8.826 billion. As discussed below, a portion  
4 of these total Project costs have already been determined to be reasonable and prudent.  
5 Importantly, per the Stipulation executed between the Company, PIA Staff, and several  
6 intervenors on August 29, 2023, the Company will forego an additional \$1.264 billion. In  
7 total, Georgia Power has agreed to forego recovery of \$2.626 billion in construction and  
8 capital cost and seeks to collect \$7.562 billion in construction and capital cost from  
9 customers.

10 *Amounts Already Determined to be Reasonable and Prudent*

11 **Q. HAS THE COMMISSION PREVIOUSLY FOUND ANY PORTION OF THE**  
12 **PROJECT'S CONSTRUCTION AND CAPITAL COST TO BE REASONABLE**  
13 **AND PRUDENT?**

14 **A.** Yes. At various points throughout the construction of Units 3 and 4, and as part of the VCM  
15 proceedings in Docket No. 29849, the Commission has found that certain categories of  
16 costs were reasonable or prudently incurred:

- 17 • As part of the SIR Final Order, the Commission deemed prudent the \$3.569 billion  
18 incurred by Georgia Power on the Project through the VCM 14 Reporting Period  
19 ending December 31, 2015 (including settlement costs paid or to be paid to  
20 Westinghouse).
- 21 • Also, in the SIR Final Order, the Commission found that costs up to \$5.68 billion were  
22 presumed prudent, thereby shifting the evidentiary burden to intervening parties to  
23 show that costs incurred over \$3.569 billion and up to \$5.68 billion were *not* prudently  
24 incurred.
- 25 • In VCM 17, the Commission deemed that construction and capital cost up to \$7.3  
26 billion were deemed reasonable.

- In VCM 19, the Commission found that all construction monitoring costs are reasonable and prudent.

Through the VCM process, the Commission has verified and approved all expenditures up to the revised, approved construction and capital cost of \$7.3 billion and has reviewed, but not verified and approved, all expenditures above that amount.

**Q. HOW MUCH OF THE CONSTRUCTION AND CAPITAL COST MUST THE COMPANY DEMONSTRATE TO BE REASONABLE IN THIS PROCEEDING?**

A. Consistent with the Commission's prior findings and based on the \$8.826 billion the Company has determined to be recoverable from customers, the Company would need to show that \$1.5 billion in construction and capital cost are reasonable. However, considering that the Stipulation limits recovery for the Project to \$7.562 billion, Georgia Power must only demonstrate reasonableness of \$236 million in construction and capital cost above the \$7.3 billion previously deemed reasonable, as illustrated in Table 4:

**Table 4: Costs Remaining to be Determined Reasonable**

| Remaining Construction and Capital Cost to be Determined Reasonable: | Amount<br>(in millions) |
|----------------------------------------------------------------------|-------------------------|
| Stipulated Amount                                                    | \$7,562                 |
| VCM 17 Order                                                         | (\$7,293)               |
| VCM 19 – CM Fees                                                     | (\$33)                  |
| <b>Total Remaining</b>                                               | <b>\$236</b>            |

**Q. HOW MUCH OF THE STIPULATED REQUESTED RECOVERY AMOUNT MUST THE COMPANY DEMONSTRATE TO BE PRUDENT IN THIS PROCEEDING?**

A. Consistent with the Commission's prior findings and based on the \$8.826 billion the Company has determined to be recoverable from customers, the Company would need to

show that \$3.113 billion in construction and capital cost are prudent. However, given the Stipulation limits recovery for the Project to \$7.562 billion, the Company has the burden to show that \$1.849 billion in construction and capital cost are prudent. Table 5 below illustrates Georgia Power's burden of proof as to the prudence of the remaining construction and capital cost:

**Table 5: Costs Remaining to be Determined Prudent**

| Remaining Construction and Capital Cost to be Determined Prudent: | Amount<br>(in millions) |
|-------------------------------------------------------------------|-------------------------|
| Stipulated Amount                                                 | \$7,562                 |
| Presumed Prudent in SIR Final Order                               | (\$5,680)               |
| VCM 19 – CM Fees                                                  | (\$33)                  |
| <b>Total Remaining</b>                                            | <b>\$1,849</b>          |

**Q. WHAT COSTS ARE INCLUDED IN THE AMOUNTS GREATER THAN THE \$5.68 BILLION PRESUMED PRUDENT AND UP TO THE \$8.826 BILLION THE COMPANY BELIEVES IS RECOVERABLE FROM CUSTOMERS?**

**A.** The construction and capital cost between \$5.68 billion and \$8.826 billion were generally incurred after the WEC Bankruptcy and SIR Final Order (2016) through the VCM 27 reporting period (June 2022). These costs include the Project's transition following the WEC Bankruptcy, loss of the protection of a fixed price contract, the reforecasting of the cost to complete, Southern Nuclear's management of a new primary contractor and subcontractors on the Project, and completion of construction on Unit 3.

2 **Q. WHAT ACTIONS AND DECISIONS ARE REFLECTED IN THE COSTS**  
3 **INCURRED BETWEEN THE SIR FINAL ORDER IN 2016 AND MID-2022?**

4 A. Several of the Company's decisions that have received significant attention from PIA Staff  
5 and intervenors in the VCM proceedings were made following the SIR Final Order in 2016  
6 and when the Company spent up to \$8.826 billion in June 2022, including but not limited  
7 to: tracking performance using CPI rather than adjusting unit rates; managing to an  
8 aggressive site work plan; and implementing a partial release to test approach.

9 **Q. WHY DID THE COMPANY ELECT TO USE CPI TO TRACK PERFORMANCE**  
10 **RATHER THAN UPDATING UNIT RATES WHEN IT TOOK OVER CONTROL**  
11 **OF PROJECT CONSTRUCTION?**

12 A. Following Southern Nuclear's transition after VCM 17, the Company elected to maintain  
13 the unit rates from their initial inclusion in the project control tools to establish a consistent  
14 baseline from which to measure performance. If Southern Nuclear had adjusted unit rates  
15 over time, there would not be a consistent baseline of performance, which would decrease  
16 the value of real-time performance indicators. Rather than adjust unit rates, the Company  
17 measured performance using actual experienced CPIs in project management, manpower  
18 loading, and schedule adjustments.

19 **Q. WHY DID THE COMPANY CHOOSE TO MANAGE TO AN AGGRESSIVE SITE**  
20 **WORK PLAN?**

21 A. When Southern Nuclear took over Project construction after the WEC Bankruptcy, the  
22 Company re-estimated the Project cost and schedule. The Company understood the need  
23 for a schedule to be realistic and achievable, and the Company was cognizant of the fact  
24 that often, if you give a team more time to do something, they are likely to use all their  
25 allotted time. After assuming control of the planning process, and to improve production

1 and provide schedule margin, Southern Nuclear planned to complete the Project ahead of  
2 the regulatory-approved in-service dates of November 2021 and November 2022 for Units  
3 3 and 4, respectively. Southern Nuclear continually acknowledged that this site working  
4 schedule was aggressive and believed working towards a challenging schedule was  
5 necessary to help the Project Team maintain focus and drive toward completion of the  
6 Project. The Project team used this method as a project management tool and motivator to  
7 get the Project done as expeditiously as possible in a safe and quality manner. In addition,  
8 by using an aggressive schedule, it allowed the earlier identification of potential risks in  
9 testing that otherwise would have been identified later in the project.

10 **Q. HOW CAN THE USE OF AN AGGRESSIVE SITE WORK PLAN HAVE BEEN**  
11 **REASONABLE IF IT WAS NEVER MET?**

12 A. As a part of its Integrated Project Schedule, Southern Nuclear used the aggressive site  
13 schedule as a management tool. The aggressive Site Work Plan worked as intended. as it  
14 helped drive the Project forward, identifying risks early and allowing the Project to pivot  
15 when a roadblock or barrier halted work on one critical path. The Company recognized  
16 that the dynamic nature associated with the aggressive Site Work Plan made reporting to  
17 its stakeholders challenging, and as a complement to the aggressive Site Work Plan, the  
18 Company developed the risk-adjusted schedule for tracking and reporting purposes. Used  
19 in conjunction with the site's more aggressive working schedule, these risk-adjusted  
20 schedules provided points of comparison and valuable risk management for the site  
21 working schedule. The risk-adjusted schedules also provided forecasted production levels  
22 needed to meet the regulatory-approved and risk-adjusted in-service dates. By creating and  
23 reviewing these benchmark schedules, the Project Team, Co-Owners, and PIA Staff were  
24 able to compare the production levels and milestone dates forecasted to meet the in-service  
25 dates beyond the site working schedule.

1 **Q. WHY DID THE COMPANY IMPLEMENT A PARTIAL RELEASE TO TEST**  
2 **(“PRT”) APPROACH?**

3 A. The aggressive site work plan not only enabled the Project Team to gain a better  
4 understanding of the risks that were in front of them, but also helped identify those risks  
5 earlier than they otherwise would have. A key process for identifying risks sooner rather  
6 than later was the Partial Release to Test (“PRT”) approach, which provided Initial Test  
7 Program (“ITP”) personnel with access to early testing of components and equipment. As  
8 construction on Unit 3 progressed, rather than derail the Project’s testing schedule, site  
9 leadership decided to subdivide systems and structures into subcomponents for testing  
10 purposes. This approach allowed the Project to get components and partial systems in front  
11 of the testing organization as quickly as possible. As with the aggressive schedule, the  
12 Company implemented PRTs to identify as much risk as possible to adjust and provide  
13 needed flexibility in progressing toward completion.

14 **Q. WAS IT REASONABLE AND PRUDENT TO IMPLEMENT PRT ON THE**  
15 **PROJECT?**

16 A. Yes. It was appropriate to use PRTs on Unit 3 (the first of the two Units to be completed)  
17 simply to learn more, more quickly. By testing early and finding potential shortcomings  
18 earlier, the Project was able to apply lessons learned from Unit 3 to Unit 4 sooner than  
19 would have otherwise been the case had the Company not used a PRT approach. Unit 4  
20 construction progressed significantly more quickly than Unit 3 in large part because of the  
21 decision to use PRT on Unit 3. The Project was able to identify numerous operational risks  
22 as fast as possible, which in turn led to better implementation on Unit 4.

23 **Q. DOES THE COMPANY BELIEVE THAT THE COSTS RELATED TO THESE**  
24 **DECISIONS WERE REASONABLE AND PRUDENT?**

25 A. Yes.

1           **D.     Total Construction and Capital Cost Stipulated to be Recovered**

2   **Q.     HOW DID THE STIPULATING PARTIES DETERMINE THAT \$7.562 BILLION**  
3       **WAS AN APPROPRIATE TOTAL CONSTRUCTION AND CAPITAL COST FOR**  
4       **THE COMPANY TO RECOVER?**

5   A.     As described in the Stipulation, the agreed to reduction in the construction and capital cost  
6       from the total projected construction and capital cost expected to be spent takes into  
7       consideration the extended length of time to construct the Project, replacement energy costs  
8       incurred during the prolonged construction time, and other issues of concern such as the  
9       amount of rework required, scheduling of activities, testing, and productivity.

10   **Q.     WHAT HAPPENS IF UNIT 4 IS DELAYED OR THE COMPANY INCURS**  
11       **ADDITIONAL CONSTRUCTION AND CAPITAL COST TO FINISH THE**  
12       **PROJECT?**

13   A.     As provided by the Stipulation, the \$7.562 billion of total construction and capital cost  
14       amount is a limit on the amount the Company can recover for the Project. Any additional  
15       construction and capital cost incurred prior to Commercial Operation will be the  
16       responsibility of the Company not customers. If Unit 4 does not achieve Commercial  
17       Operation by March 31, 2024, the Company's return on equity ("ROE") used to calculate  
18       both the NCCR tariff revenue requirement and the AFUDC will be reduced to zero until  
19       Unit 4 reaches Commercial Operation.

20   **Q.     HOW MUCH HAS THE COMPANY AGREED TO FOREGO IN COST**  
21       **RECOVERY?**

22   A.     If the Stipulation is approved, the Company will forgo recovery of a total of \$2.626 billion  
23       in prudently incurred costs to bring Vogtle Units 3 and 4 through construction, testing, and  
24       startup and into operations to serve our 2.7 million customers.

1 **IV. FINANCING COSTS**

2 **Q. HOW HAS THE COMPANY RECOVERED FINANCING COSTS FROM**  
3 **CUSTOMERS DURING CONSTRUCTION?**

4 A. Pursuant to O.C.G.A. § 46-2-25(c.1), the Company recovers from customers the financing  
5 costs on the certified construction and capital cost of Vogtle Units 3 and 4 through the  
6 NCCR Tariff, which permits recovery of financing costs during construction of the Units.  
7 Financing costs incurred on the construction and capital cost above the \$4.418 billion  
8 certified amount are accrued through AFUDC to be included in rate base and recovered  
9 from customers upon Commercial Operation of Unit 4.

10 **Q. ARE THERE GROUNDS FOR DISALLOWING ANY FINANCING COSTS,**  
11 **WHETHER COLLECTED THROUGH THE NCCR TARIFF OR AFUDC?**

12 A. No. The financing costs incurred and accrued through the NCCR Tariff and AFUDC are a  
13 direct byproduct of the construction and capital cost incurred on the Project. Therefore,  
14 reasonable and prudent capital costs during construction will result in corresponding  
15 AFUDC financing costs, which should also be deemed prudent and reasonable and  
16 appropriately recovered from customers.

17 **Q. HOW DID THE COMPANY CALCULATE THE REQUESTED AFUDC**  
18 **INCLUDED IN THIS FILING?**

19 A. The Company included the actual and projected AFUDC accrued on the construction  
20 and capital cost above the certified amount of \$4.418 billion up to the stipulated \$7.562  
21 billion and excluded any construction and capital cost above the stipulated amount  
22 from its AFUDC calculation. The AFUDC financing costs align with the construction  
23 and capital amount requested in this filing and the Stipulation. The cost of capital

1 applied to AFUDC is consistent with the ROE reductions implemented by the  
2 Commission in the SIR Final Order and again in the VCM 17 Order.

3 **Q. WHY IS IT APPROPRIATE FOR FINANCING COSTS TO FOLLOW THE**  
4 **CONSTRUCTION AND CAPITAL COST FOR WHICH THEY WERE**  
5 **INCURRED?**

6 A. The accounting for financing costs in conjunction with the construction and capital cost for  
7 which they were incurred is in accordance with US Generally Accepted Accounting  
8 Principles (“GAAP”), FERC, and general utility ratemaking. Traditional utility  
9 ratemaking, as well as US GAAP and FERC, consider financing costs to be a cost of  
10 construction and necessary to bring an asset to the condition and location necessary for its  
11 intended use. The treatment of financing costs should follow the treatment of the  
12 underlying construction and capital cost.

13 **Q. WHAT WILL HAPPEN TO COLLECTIONS UNDER THE NCCR TARIFF WHEN**  
14 **UNIT 4 REACHES COMMERCIAL OPERATION?**

15 A. On the effective date of the rate adjustment following Commercial Operation of Unit 4 the  
16 Company will cease collecting financing costs through the NCCR tariff and those financing  
17 costs will be included in Georgia Power’s general revenue requirements and collected  
18 through base rates.

19 **Q. WHAT WILL HAPPEN TO ANY OVER OR UNDER RECOVERY REMAINING**  
20 **WHEN THE COMPANY CEASES COLLECTING FINANCING COSTS UNDER**  
21 **THE NCCR TARIFF?**

22 A. Any over or under-recovered balance resulting from the NCCR tariff at its termination date  
23 will be included in rate base and addressed in the next base rate case.

1    **V.    OPERATING COSTS**

2    **Q.    PLEASE DESCRIBE THE OPERATING COSTS THE COMPANY SEEKS TO**  
3    **RECOVER FROM CUSTOMERS.**

4    A.    The Company has included depreciation expenses, O&M expenses, property tax expenses,  
5    and nuclear decommissioning expenses as part of the operating expenses to be included in  
6    the revenue requirement to be recovered from customers upon Commercial Operation of  
7    Unit 4. The Company has also included operating costs for nuclear fuel plant and materials  
8    and supplies inventory in the projected rate base, which are both necessary costs of  
9    operating Units 3 and 4. The projected operating cost profile and ultimate costs to  
10   customers will be significantly reduced thanks to the benefit of the PTCs related to the  
11   Company's share of Vogtle Unit 3 and 4's generation output. The Company proposes to  
12   provide the full benefit of the PTCs generated by Units 3 and 4 to customers through an  
13   offset to operating expenses in the revenue requirement.

14   **Q.    SHOULD THERE BE ANY DISALLOWANCES, ADJUSTMENTS, OR OTHER**  
15   **LIMITATIONS ON THESE OPERATING AMOUNTS INCLUDED IN REVENUE**  
16   **REQUIREMENTS?**

17   A.    No. When Units 3 and 4 achieve Commercial Operation, they will be fully dispatchable  
18   baseload generation available to serve customers with the generation output of the  
19   Company's ownership in Units 3 and 4 serving customers as a certified generating  
20   resource. The Stipulation with PIA Staff and several other intervenors provides for full  
21   recovery of the operating amounts included in the revenue requirement. Under typical  
22   regulatory accounting treatment, operating costs are either included in rates once a unit is  
23   placed in service or deferred for future recovery until the regulatory review process for the  
24   capital cost of the unit is completed. This regulatory proceeding completes the regulatory  
25   review process for all of Unit 3 and 4 costs. It would be inappropriate for the Commission  
26   to disallow recovery of operating costs for a certified generation facility that is in service.

1 **VI. REPLACEMENT FUEL COSTS**

2 **Q. WHAT IS THE COMPANY'S ESTIMATE OF REPLACEMENT FUEL COSTS?**

3 A. The Company calculated replacement fuel costs as directed by the VCM 12 order in all  
4 VCM proceedings following the initial certification dates of the Project. The Company's  
5 replacement energy cost analysis is found in Table 1.2 of each VCM report starting in VCM  
6 15 and, to show the net cost picture, includes not only the deferred benefits of replacement  
7 energy costs and PTCs but also the deferred operating expenses that customers would be  
8 paying if the Units were in operation. The updated Company analysis presented in Table 5  
9 of the Company's Application to Adjust Rates accounts for the Commercial Operation  
10 dates of November 2021 for Unit 3 and November 2022 for Unit 4 found reasonable in the  
11 VCM 17 Order. The updated regulatory-approved dates are the appropriate benchmark  
12 since the Project was holistically reviewed in a 'Go'/'No-Go' decision and the option  
13 selected was to continue construction under a new project structure versus selecting an  
14 alternate option to meet the growing load demand.

15 **Q. IS THERE A FUEL COST BENEFIT TO THE NEW NUCLEAR UNITS?**

16 A. Yes, nuclear energy has historically provided a benefit to customers in the form of lower  
17 fuel costs as compared to other generating options. When the Units achieve Commercial  
18 Operation, they are dispatchable and capable of ramping up and down to follow load, and  
19 typically dispatch at 100% power, 24 hours a day, seven days a week as a baseload resource  
20 due to their lower operating and fuel costs compared to other resources on the system.

21 **Q. DOES THE COMPANY'S CURRENT FUEL COST RECOVERY ("FCR") TARIFF**  
22 **CAPTURE THE IMPACT OF VOGTLE UNITS 3 AND 4 ACHIEVING**  
23 **COMMERCIAL OPERATION?**

24 A. Yes. The Company's FCR-26 rates currently in place anticipated Vogtle Units 3 and 4  
25 achieving Commercial Operation in March and December 2023, respectively. Based on the

1 estimates available from the previous VCM 28 filing, the Units are expected to provide  
2 approximately \$289 million of projected fuel cost savings for the 24-month test period  
3 ending March 2025. Prior to Commercial Operation, during testing, the cost of the fuel  
4 consumed is capitalized and included as construction cost, and the kilowatt hours generated  
5 during the testing period are available for retail customers and included in the Company's  
6 FCR calculations.

7 **VII. RETAIL BASE RATE ADJUSTMENT**

8 **Q. PLEASE DESCRIBE THE COMPANY'S REQUEST TO ADJUST BASE RATES**  
9 **ONCE UNIT 4 ACHIEVES COMMERCIAL OPERATION.**

10 A. The Company requests to increase base rates by \$729 million effective the first day of the  
11 month following Unit 4 achieving Commercial Operation.

12 **Q. HOW IS THE COMPANY PROPOSING TO ALLOCATE THE REQUESTED**  
13 **INCREASE IN BASE RATES?**

14 A. The proposed increase will be allocated equally across all base tariffs consistent with how  
15 the Unit 3 rate adjustment was designed and ultimately approved by the Commission. The  
16 Company will design the remaining Vogtle Unit 3, Unit 4, and Common facilities price  
17 changes after completing the rate design for the October 1, 2023, rate case compliance  
18 filing as specified in the Commission's Order in Docket No. 44280.

19 **Q. HOW DID THE COMPANY DETERMINE THE RETAIL REVENUE**  
20 **DEFICIENCY FOR THE REMAINING AMOUNT OF VOGTLE UNITS 3 AND 4**  
21 **FOR THIS PROCEEDING?**

22 A. To derive the incremental retail revenue deficiency for the remaining amount of Vogtle  
23 Units 3 and 4, the Company calculated the total revenue requirement for Vogtle Units 3  
24 and 4 for the twelve-month period ending March 31, 2025, and subtracted the base rate  
25 increase amount approved in the Vogtle Unit 3 Rate Adjustment Order, which went into

1 effect on August 1, 2023. The resulting revenue deficiency represents the cost of Vogtle  
2 Units 3 and 4 that has not been contemplated in base rates.

3 **Q. PLEASE DESCRIBE THE DEVELOPMENT OF THE RETAIL REVENUE**  
4 **DEFICIENCY AMOUNT FOR THE TWELVE-MONTH PERIOD ENDING**  
5 **MARCH 31, 2025.**

6 A. The calculation in Figure 2 below presents a revenue deficiency of \$729 million for the  
7 period ending March 31, 2025, to be collected through base rates beginning April 2024,  
8 the month following Unit 4's anticipated Commercial Operation. The calculations are  
9 consistent with those used in the Company's base rate proceedings. The requested  
10 financing costs reflect the Company's cost of capital requirements, which are weighted by  
11 the mix of long-term debt and common equity to produce an overall rate of return. This  
12 rate of return is then applied to the rate base to yield the Company's earnings requirement.  
13 The Company is also requesting to collect the related operating expenses including:  
14 (1) depreciation expense; (2) O&M expenses; (3) property taxes; and (4) nuclear  
15 decommissioning costs, as well as return the full benefits of the PTCs related to Georgia  
16 Power's ownership in Units 3 and 4 to customers, which will offset a portion of the  
17 operating expenses.

18 The earnings requirement is then compared to earnings available for return to determine  
19 the amount of retail earnings deficiency during the recovery period being considered. This  
20 earnings deficiency is then adjusted to cover income taxes by using an "income expansion  
21 factor." This factor, 74.596%, reflects a federal income tax rate of 21% and a state income  
22 tax rate of 5.75%. The income expansion factor also includes a reduction for uncollectible  
23 accounts, slightly offset by compensation for collection of sales tax. The income expansion  
24 factor used in this filing is the factor approved by the Commission in the 2022 base rate  
25 case. The retail earnings deficiency is then divided by the income expansion factor to  
26 determine the total revenue deficiency from retail customers. Finally, the base rate increase

amount approved by the Commission in the Unit 3 Rate Adjustment Order is subtracted from the total to arrive at the incremental revenue deficiency requested in this filing.

**FIGURE 2**  
**COMPUTATION OF RETAIL REVENUE DEFICIENCY**  
**FOR THE TWELVE MONTH PERIOD ENDING MARCH 2025**  
**(AMOUNTS IN THOUSANDS)**

| Line<br>No. | Description                                                | Amount       |
|-------------|------------------------------------------------------------|--------------|
| (1)         | (2)                                                        | (3)          |
| 1           | Retail Rate Base                                           | \$ 8,579,833 |
| 2           | Requested Rate of Return                                   | × 7.78%      |
| 3           | Earnings Requirement                                       | \$ 667,262   |
| 4           | Less: Earnings Available for Return                        | - (114,452)  |
| 5           | Earnings Deficiency                                        | \$ 781,715   |
| 6           | Income Expansion Factor                                    | ÷ 74.596%    |
| 7           | Total Revenue Deficiency                                   | \$ 1,047,933 |
| 8           | Less: Vogtle Unit 3 Rate Adjustment Order                  | (318,471)    |
| 9           | Vogtle Prudency Request for Unit 4 and Remainder of Unit 3 | \$ 729,463   |

**Q. WHAT COMPONENTS MAKE UP THE RETAIL RATE BASE AMOUNT PRESENTED IN FIGURE 2 UPON WHICH THE COMPANY IS BASING ITS REVENUE DEFICIENCY FOR THE TWELVE-MONTH PERIOD ENDING MARCH 31, 2025?**

**A.** The components are provided in Figure 3 below.

**FIGURE 3**  
**RATE BASE COMPONENTS**  
**FOR THE TWELVE MONTH PERIOD ENDING MARCH 2025**  
**13-MONTH AVERAGES**  
**(AMOUNTS IN THOUSANDS)**

| Line<br>No. | Description                                     | Amount       |
|-------------|-------------------------------------------------|--------------|
| (1)         | (2)                                             | (3)          |
| 1           | Retail Electric Plant in Service                | \$ 7,998,591 |
| 2           | Accumulated Depreciation                        | (131,194)    |
| 3           | Nuclear Fuel Plant in Service                   | 324,082      |
| 4           | Nuclear Fuel Accumulated Reserve                | (116,818)    |
| 5           | Net Plant in Service                            | \$ 8,074,660 |
| 6           | Deferred Interest on Nuclear Fuel               | 24,466       |
| 7           | Spare Parts Inventory                           | 53,739       |
| 8           | NCCR Non-Protected Excess ADIT Regulatory Asset | 138,204      |
| 9           | Unit 3 Deferred Depreciation Regulatory Asset   | 25,482       |
| 10          | Unit 3 Deferred Financing Regulatory Asset      | 51,716       |
| 11          | Accumulated Deferred Income Taxes               | 211,566      |
| 12          | Total Rate Base                                 | \$ 8,579,833 |

**Q. PLEASE DESCRIBE HOW THE COMPANY’S REQUESTED RATE OF RETURN IS CALCULATED.**

A. The Company’s 7.78% requested rate of return is based on the 13-month average of the estimated capitalization from March 2024 through March 2025. The long-term debt proportion of capitalization is multiplied by its average estimated embedded cost for each month through March 2025. The cost of common equity represents the 10.5% ROE approved in the Company’s 2022 base rate case proceeding. Figure 4 below shows the capital structure components for the 13-month period, together with associated costs.

**FIGURE 4**  
**ADJUSTED RETAIL RATE OF RETURN SUMMARY**  
**AVERAGE FOR THE THIRTEEN MONTH PERIOD ENDING MARCH 2025**  
**(AMOUNTS IN THOUSANDS)**

| Line<br>No. | Component      | Average<br>Adjusted<br>Balance<br>3/31/2025 | Component<br>Ratio | Average<br>Cost | Component<br>Cost |
|-------------|----------------|---------------------------------------------|--------------------|-----------------|-------------------|
| (1)         | (2)            | (3)                                         | (4)                | (5)             | (6)               |
| 1           | Long-Term Debt | \$ 16,936,015                               | 44.13%             | 4.33%           | 1.91%             |
| 2           | Common Equity  | 21,442,939                                  | 55.87%             | 10.50%          | 5.87%             |
| 3           | Total          | \$ 38,378,954                               | 100.00%            |                 | 7.78%             |

**Q. PLEASE IDENTIFY WHICH LINE(S) AND AMOUNTS OF OPERATING EXPENSES AND PRODUCTION TAX CREDITS ARE INCLUDED IN THE REVENUE DEFICIENCY CALCULATION PRESENTED IN FIGURE 2.**

**A.** The after-tax (earnings) impact of the operating expenses and the PTCs are summed and presented on Figure 2, line 4, "Earnings Available for Return." The calculation of earnings available for return for the twelve-month period ending March 2025 is presented in Figure 5 below.

**FIGURE 5**  
**EARNINGS AVAILABLE FOR RETURN**  
**FOR THE TWELVE MONTH PERIOD ENDING MARCH 2025**  
**(AMOUNTS IN THOUSANDS)**

| Line<br>No. | Description                               | Amount       |
|-------------|-------------------------------------------|--------------|
| (1)         | (2)                                       | (3)          |
| 1           | Operations & Maintenance                  | \$ (154,751) |
| 2           | Depreciation                              | (134,136)    |
| 3           | Property Taxes                            | (58,468)     |
| 4           | Nuclear Decommissioning                   | (15,337)     |
| 5           | NCCR Non-Protected ADIT Amortization      | (14,548)     |
| 6           | Unit 3 Deferred Depreciation Amortization | (2,682)      |
| 7           | Unit 3 Deferred Financing Amortization    | (5,444)      |
| 8           | Earnings Before Taxes                     | \$ (385,366) |
| 9           | Federal Income Taxes                      | 242,101      |
| 10          | State Income Taxes                        | 28,813       |
| 11          | Earnings Available for Return             | \$ (114,452) |

1 **Q. WHAT DEPRECIATION RATE HAS THE COMPANY APPLIED TO THE**  
2 **VOGTLE UNITS 3 AND 4 FACILITIES PLACED IN PLANT-IN-SERVICE TO**  
3 **CALCULATE THE AMOUNT OF DEPRECIATION EXPENSE REQUESTED TO**  
4 **BE RECOVERED?**

5 A. As provided in the Stipulation, the Company applied an annual depreciation rate of 1.677%  
6 for Vogtle Units 3 and 4 and Common Nuclear Production Plant-in-Service as approved in  
7 the Unit 3 Rate Adjustment Order in Docket No. 43838. This depreciation rate assumed a  
8 60-year operating life for Vogtle Units 3 and 4. The depreciation rate for Vogtle Units 3  
9 and 4 and Common facilities will be reevaluated in the Company's depreciation study in  
10 its next base rate case.

11 **Q. WHAT IS INCLUDED IN THE NUCLEAR DECOMMISSIONING ACCRUAL**  
12 **PROPOSED IN THIS FILING?**

13 A. The Company included the license termination and the spent fuel management components  
14 of nuclear decommissioning for Vogtle Unit 3 and 4 in this filing and excluded site  
15 restoration costs. For license termination, the Company used the NRC minimum  
16 calculation. For the spent fuel management component, the Company used the projected  
17 costs from the site-specific study for Vogtle Units 3 and 4 performed by TLG Services,  
18 Inc. The current 40-year operating license was used to derive the estimates as required by  
19 the NRC to satisfy funding assurance for nuclear decommissioning.

20 **Q. ARE THERE SPECIFIC NRC REGULATIONS REGARDING THE**  
21 **CALCULATION AND FUNDING OF NUCLEAR DECOMMISSIONING COSTS?**

22 A. Yes, 10 CFR Part 50.75 defines the nuclear decommissioning calculation and funding  
23 requirements to ensure funding is available upon the current license termination date, or 40  
24 years for Vogtle Units 3 and 4, to decommission the radioactive components of the Units.

1 **Q. WERE THE ESTIMATED VOGTLE UNITS 3 AND 4 NUCLEAR**  
2 **DECOMMISSIONING COSTS REQUESTED IN THIS PROCEEDING**  
3 **CALCULATED IN ACCORDANCE WITH THE NRC REQUIREMENT?**

4 A. Yes.

5 **Q. HAS THIS COMMISSION HISTORICALLY PROVIDED FOR THE RECOVERY**  
6 **OF NUCLEAR DECOMMISSIONING COSTS FOR LICENSE TERMINATION**  
7 **CALCULATED USING THE NRC MINIMUM METHODOLOGY AND COSTS**  
8 **FOR SPENT FUEL MANAGEMENT FROM THE SITE-SPECIFIC STUDY?**

9 A. Yes.

10 **Q. HOW ARE THE PROJECTED PROPERTY TAXES CALCULATED IN THIS**  
11 **FILING?**

12 A. The projected property taxes are based on the amount estimated to be remitted to the taxing  
13 authorities, which is consistent with the state-required method of valuation for public  
14 utilities.

15 **Q. ARE THE PROPERTY TAXES DEPENDENT ON THE AMOUNT OF**  
16 **CONSTRUCTION AND CAPITAL COST APPROVED FOR RECOVERY FROM**  
17 **CUSTOMERS?**

18 A. No. The property taxes required by the taxing authorities are based on the total construction  
19 and capital cost spent by the Company on the Project. Therefore, as provided in the  
20 Stipulation, the Company appropriately included the total projected construction and  
21 capital cost in its calculation of the property taxes in this filing to most accurately reflect  
22 the estimated property tax to be paid.

1 **Q. IS THE COMPANY ALSO PROPOSING TO PROVIDE 100% OF ITS**  
2 **OWNERSHIP BENEFIT OF THE PTCs TO CUSTOMERS?**

3 A. Yes. The Company has included its full annual amount allowed under the IRS regulations  
4 as an offset to the operating costs.

5 **Q. IS THE COMPANY SEEKING RECOVERY OF PREVIOUSLY DEFERRED**  
6 **COSTS ASSOCIATED WITH VOGTLE UNITS 3 AND 4?**

7 A. Yes. As agreed in the Stipulation, the Company is seeking to recover (i) the deferred  
8 depreciation related to Unit 3 and Common facilities incurred since Unit 3 was placed in  
9 service, (ii) the deferred financing costs of Unit 3 and Common facilities accrued since  
10 Unit 3 was placed in service, (iii) the deficient ADITs resulting from TCJA, and (iv) the  
11 deferred interest on nuclear fuel accrued in accordance with prior Commission order  
12 (Docket No. 3397).

13 **Q. PLEASE DESCRIBE THE RECOVERY OF DEFERRED DEPRECIATION**  
14 **PROPOSED IN THIS FILING.**

15 A. As approved in the Unit 3 Rate Adjustment Order, the Company is deferring to a regulatory  
16 asset the depreciation of Unit 3 and Common facilities above the \$2.1 billion of  
17 construction and capital cost approved for inclusion in rate base upon Commercial  
18 Operation of Unit 3. The deferred depreciation is calculated based on the 1.677%  
19 depreciation rate approved in the Unit 3 Rate Adjustment Order through the Commercial  
20 Operation of Unit 4. The Stipulation provides for the amortization of the deferred  
21 depreciation the month after Unit 4 Commercial Operation ratably over a 10-year period.

22 **Q. PLEASE DESCRIBE THE RECOVERY OF DEFERRED FINANCING COSTS**  
23 **PROPOSED IN THIS FILING.**

24 A. As approved in the Unit 3 Rate Adjustment Order, the Company is deferring to a regulatory  
25 asset the financing costs of Unit 3 and Common facilities above the \$2.1 billion of

1 construction and capital cost approved for inclusion in rate base upon Commercial  
2 Operation of Unit 3. The cost of equity incorporated in the deferred financing costs is the  
3 Company's average cost of long-term debt as approved in the Unit 3 Rate Adjustment  
4 Order through Commercial Operation of Unit 4. Since the Company cannot defer the equity  
5 return for GAAP financing reporting purposes, the Company will defer the debt return to  
6 the regulatory asset for GAAP and will defer the equity return to the regulatory asset for  
7 regulatory reporting purposes only. The Stipulation provides for the amortization of the  
8 deferred financing costs, both debt and equity, the month after Commercial Operation of  
9 Unit 4 ratably over a 10-year period.

10 **Q. PLEASE DESCRIBE THE RECOVERY OF DEFICIENT ADITS REGULATORY**  
11 **ASSET INCLUDED IN THE STIPULATION.**

12 A. As a result of the TCJA in December 2017, the Company recorded a regulatory asset of  
13 \$145.5 million associated with the deficient ADITs for Vogtle Units 3 and 4. The  
14 Stipulation provides for the Company to amortize the deficient ADITs the month after  
15 Unit 4 Commercial Operation ratably over a 10-year period.

16 **Q. PLEASE DESCRIBE THE RECOVERY OF DEFERRED INTEREST ON**  
17 **NUCLEAR FUEL INCLUDED IN THE STIPULATION.**

18 A. In accordance with the prior Commission order in Docket No. 3397, the Company is  
19 deferring interest costs on Vogtle Units 3 and 4 nuclear fuel to a deferred asset account  
20 through their respective Commercial Operation dates. The Stipulation provides for the  
21 deferred interest on nuclear fuel to be amortized through fuel expense over the respective  
22 fuel cycles of Vogtle Units 3 and 4.

23 **VIII. COMMERCIAL OPERATION**

24 **Q. WHEN DID UNIT 3 ACHIEVE COMMERCIAL OPERATION?**

25 A. Unit 3 achieved Commercial Operation on July 31, 2023.

1 **Q. HAS UNIT 3 PERFORMED AS EXPECTED SINCE ACHIEVING**  
2 **COMMERCIAL OPERATION?**

3 A. Yes. Since July 31, 2023, Unit 3 has remained operational and dispatchable, serving  
4 Georgia customers with 24-hour a day, 7-day a week carbon-free electricity.

5 **Q. WHAT PROCESS DOES THE COMPANY PROPOSE TO DETERMINE**  
6 **THAT UNIT 4 HAS ACHIEVED COMMERCIAL OPERATION?**

7 A. Commercial Operation is defined in the SIR Stipulation as “fully dispatchable on  
8 demand at the stated Net Electrical Output of 1,102 MWe.” Utilizing the same process  
9 as Unit 3, at the conclusion of its testing and start-up procedures, Southern Nuclear  
10 will determine when Unit 4 is “fully dispatchable on demand at the stated Net  
11 Electrical Output of 1,102 MWe.” Once this determination is made, the Company,  
12 along with the other Vogtle Co-Owners, will declare that Unit 4 has achieved  
13 Commercial Operation, will turn over Unit 4 to Fleet Operations, and will notify the  
14 Commission of that declaration.

15 **Q. WHAT FORM OF NOTIFICATION DOES THE COMPANY NEED TO**  
16 **PROVIDE TO THE COMMISSION WHEN UNIT 4 HAS ACHIEVED**  
17 **COMMERCIAL OPERATION?**

18 A. A simple notification process whereby the Company notifies the Commission when  
19 Unit 4 is fully dispatchable at the stated Net Electrical Output is all that is necessary  
20 for the Commission to determine that Unit 4 has achieved Commercial Operation. This  
21 process is consistent with the notification process used for Unit 3 Commercial  
22 Operation.

1 **IX. ADDITIONAL PROVISIONS INCLUDED IN THE STIPULATION**

2 **Q. DID THE STIPULATING PARTIES AGREE TO OTHER PROVISIONS IN THE**  
3 **STIPULATION FOR THE BENEFIT OF CUSTOMERS?**

4 A. Yes. As part of the Stipulation, Georgia Power agreed to three additional provisions for  
5 customers' benefit:

6 (1) Georgia Power agreed to propose in the 2025 Integrated Resource Plan ("IRP") and  
7 Demand Side Management ("DSM") Certification dockets a base case of DSM  
8 performance savings targets up to .75% of annual retail sales, reserving the right  
9 for Stipulating Parties to advocate for different savings targets.

10 (2) Effective when rates are adjusted the month after Unit 4 achieves Commercial  
11 Operation, Georgia Power agreed to expand the current Income Qualified Senior  
12 Discount to: (a) all seniors who live in a household with a combined income that is  
13 200% or less of the federal poverty level, adjusted for household size; (b)  
14 individuals who receive Social Security Disability Income assistance or  
15 Supplemental Security Income; and (c) customers who participate in the federal  
16 Housing Choice Voucher Program (HUD Section 8). The Stipulating Parties agree  
17 that Georgia Power plans to implement this change by adding up to 96,000  
18 participants over the next three years (approximately 32,000 per year). This will be  
19 paid for by residential customers and will be limited to approximately \$1 per month  
20 per customer (or approximately \$28 million annually) to cover the resulting  
21 anticipated cost shift from this provision.

1 (3) Georgia Power agreed to continue to evaluate the expansion of renewable resources  
2 and to expand renewable programs in the 2025 IRP to the extent they are beneficial  
3 to customers. Further, Georgia Power agreed to support any applications by the  
4 appropriate state agency to the Inflation Reduction Act's "Solar for All" program  
5 and, to the extent the state of Georgia is selected, Georgia Power will support the  
6 use of these funds through Commission-approved Georgia Power solar programs  
7 for the benefit of customers.

8 **Q. WHY ARE THESE PROVISIONS REASONABLE?**

9 A. While none of the Stipulating Parties received everything they would have requested in  
10 this proceeding in the absence of a settlement agreement, the agreed to terms of the  
11 Stipulation are a reasonable and balanced resolution of the outstanding prudence,  
12 reasonableness, and cost recovery issues for the Project and offer additional benefits to  
13 customers. The Stipulation is fair and reasonable and should be approved by the  
14 Commission.

15 **X. CONCLUSION**

16 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

17 A. Yes.

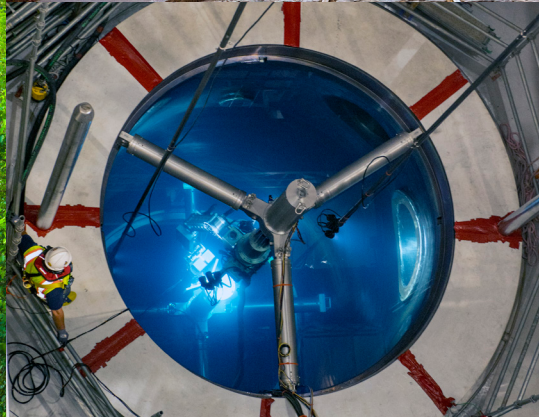
## **Exhibit 1 – NEI Economic Impact Report**



# ECONOMIC IMPACTS OF THE CONSTRUCTION AND OPERATIONS OF PLANT VOGTLE UNITS 3 & 4

AN ANALYSIS BY THE NUCLEAR ENERGY INSTITUTE

SEPTEMBER 2023



# TABLE OF CONTENTS

|                                                            |    |
|------------------------------------------------------------|----|
| Executive Summary .....                                    | 2  |
| Key Findings.....                                          | 2  |
| Historical Background.....                                 | 4  |
| Reliable Electricity Generation .....                      | 4  |
| Thousands of Local Jobs .....                              | 4  |
| Safe and Clean For The Environment.....                    | 4  |
| National, State and Regional Benefits .....                | 5  |
| State And Regional Economic Effects from Construction..... | 5  |
| National Economic Effects from Construction.....           | 5  |
| State And Regional Economic Effects from Operations .....  | 7  |
| National Economic Effects from Operations.....             | 7  |
| Community Leadership and Environmental Protection.....     | 9  |
| Workplace Leadership .....                                 | 9  |
| Environmental Stewardship.....                             | 9  |
| Community Engagement and Outreach .....                    | 10 |
| Economic Impact Analysis Methodology .....                 | 12 |
| Regional Economic Models Inc.....                          | 12 |
| Policy Insight Plus.....                                   | 12 |
| Conclusion.....                                            | 13 |
| Economic and Employment Impacts.....                       | 13 |
| Further Benefits of Vogtle 3&4 .....                       | 13 |

Vogtle 3 & 4's construction  
supported over

**21,000 jobs**

annually, including nearly

**16,800 jobs**

in Georgia and the CSRA.

Vogtle 3 & 4's construction provided

**\$64.8 billion**

in economic output,

including

**\$46.9 billion**

in Georgia and the CSRA.

## EXECUTIVE SUMMARY

Alvin W. Vogtle Electric Generating Plant (Plant Vogtle), located near Waynesboro, Georgia, has long been a vital part of the region's energy portfolio, providing 100 percent carbon-free electricity since it began operating in 1987. Building on this legacy of reliable, clean energy, the expansion project began constructing Vogtle Units 3 & 4 at the Burke County site in 2009. The units generated significant economic activity throughout the construction process, supporting more than 37,900 direct and secondary jobs at peak construction in Burke County and the Central Savannah River Area (CSRA).<sup>1</sup> Once operational, these two units will provide 800 permanent jobs and 2,204 megawatts of reliable, 24/7 clean electricity to support the state of Georgia's economic growth. Employee involvement in

their community and company contributions to nonprofits such as the Waynesboro YMCA, also makes Plant Vogtle a significant social and economic contributor to the state of Georgia and the southeastern United States.

To quantify the economic impacts of the construction and operations of this facility, the Nuclear Energy Institute (NEI) conducted an independent analysis. Based on data provided by Georgia Power Company (Plant Vogtle's largest owner) on employment and construction expenditures, NEI conducted the analysis using the E3+ model provided by Regional Economic Models, Inc. (REMI), a nationally recognized model (for more information, see page 12).

## KEY FINDINGS

The Vogtle expansion project provided:

### Employment benefits

The Vogtle expansion project created thousands of well-paying jobs in Georgia and across the country through its construction process. Vogtle 3 & 4 was the largest jobs-producing construction project in the state of Georgia, directly employing approximately 9,000 workers at peak employment. NEI estimates that at the peak of construction in 2019, the construction of Vogtle 3 & 4 supported over 37,900 direct and secondary jobs, with an average of 21,100 jobs supported annually between 2009 and 2023.

This includes nearly 16,800 jobs on average in Georgia and the CSRA and more than 4,300 on average in the rest of the United States between 2009 and 2023. These employment numbers include the number of direct and secondary jobs created as a result of the expenditures from Vogtle 3 & 4 construction.<sup>2</sup> Employment benefits continue once the units are operational, with 800 direct permanent jobs employed through the operation of Vogtle 3 & 4. Secondary job impacts from operations include 2,700 jobs in Georgia and the CSRA.

<sup>1</sup> The Central Savannah River Area (CSRA) is an planning and economic development region comprised of fourteen counties in Georgia and seven in South Carolina.

<sup>2</sup> The total number of jobs supported includes direct and secondary jobs. Direct jobs describe employees and contractors directly employed for the completion of the project. Secondary jobs include indirect and induced jobs. Indirect jobs are jobs created by direct employees' needs, while induced jobs are those created by additional personal spending.

Vogtle 3 & 4's operations will  
support

**7,900 jobs**

on average annually, including over

**3,500 jobs**

in Georgia and the CSRA.

Vogtle 3 & 4's operations will provide on average annually, including over

**\$3.9 billion**

in annual economic output,

including

**\$2.5 billion**

in Georgia and the CSRA.

## EXECUTIVE SUMMARY

### Economic stimulus

Vogtle 3 & 4 produced significant economic benefits for Georgia and the CSRA through its construction. NEI's analysis finds that the construction process for Vogtle 3 & 4 generated \$4.3 billion in average annual economic output, which includes over \$3.1 billion for Georgia and the CSRA and nearly \$1.2 billion for the rest of the country. During operation, Vogtle 3 & 4 are anticipated to generate \$2.5 billion dollars in annual economic output for Georgia and the CSRA, as well as \$1.4 billion for the rest of the U.S.

#### Total economic benefits for Georgia and the CSRA from the Vogtle 3 & 4 expansion include:

##### Construction: Total from 2009 through March 2023:

- \$46.9 billion in economic output
- \$27.2 billion increase in gross state product (GSP)
- \$31.0 billion in disposable personal income.

##### Operations: average annually from 2023 through 2063

- \$2.5 billion in economic output
- \$1.6 billion increase in gross state product (GSP)
- \$360 million in disposable personal income.

#### Total economic benefits for the rest of the country from the Vogtle 3 & 4 expansion include:

##### Construction: Total from 2009 through March 2023:

- \$17.9 billion in economic output
- \$9.8 billion increase in gross domestic product (GDP)

##### Operations: average annually from 2023 through 2063

- \$1.4 billion in economic output
- \$800 million increase in gross domestic product (GDP)

**Alvin. W. Vogtle Electric Generating Plant, Units 3 & 4**

- Type: Pressurized Water Reactor
- Commencement of commercial operation in 2023-2024
- Located 30 miles south of Augusta, Georgia
- License expires in 2062 & 2063
- Total gross electricity capacity: 2,204 MW



## HISTORICAL BACKGROUND

The Alvin W. Vogtle Electric Generating Plant (Plant Vogtle) is located east of Waynesboro, Georgia and is co-owned by Georgia Power Company (GPC), Oglethorpe Power Company, Municipal Electric Authority of Georgia, and Dalton Utilities. The expansion project consisted of the construction of two first-of-a-kind AP1000 pressurized water reactors that will produce 2,204 gross megawatts of firm, clean power. Breaking ground in 2009, the industrial megaproject is widely regarded as integral to the future of the U.S. nuclear industry and has received federal and state support. The construction project has experienced cost overruns and delays for a variety of reasons but was completed due to the value it brings to customers in the form of reliable, carbon-free, baseload energy. Vogtle Unit 3 is commercially available as of July 2023, and Unit 4 is planned to be commercially available by early 2024. Southern Nuclear Company will be the operator.

### RELIABLE ELECTRICITY GENERATION

The construction of Vogtle 3 & 4 was an investment in the reliable operations and clean environment for the state of Georgia. Across the state, the four existing reactors at Plant Hatch and Plant Vogtle Units 1 & 2 operated at a capacity factor of 95.8 percent in 2022, above the industry average of 92.6 percent. Capacity factor, a measure of electricity production efficiency, is the ratio of actual electricity generated to the maximum possible electric generation during the year. Georgia's average capacity factor for its nuclear plants over the last five years is more than 94.9 percent.<sup>3</sup>

### THOUSANDS OF LOCAL JOBS

Vogtle Units 3 & 4 was the largest jobs-producing construction project in the state of Georgia, directly employing approximately 9,000 workers at peak employment. Vogtle 3 & 4 created more than 37,900 direct, indirect, and induced jobs at peak construction. Once operational, Vogtle 3 & 4 will provide more than 800

permanent jobs to the local community. Most jobs at nuclear power plants require technical training and are typically among the highest-paying jobs in the area. Nationwide, nuclear energy jobs pay fifty percent more on average than other sources of electricity generation and more than twice the national median wage.<sup>4</sup>

### SAFE AND CLEAN FOR THE ENVIRONMENT

Nuclear energy facilities generate large amounts of electricity without emitting greenhouse gases. State and federal policymakers recognize nuclear energy as an essential source of safe, reliable electricity that meets both environmental needs and demand for electricity. Generation III+ nuclear reactors, such as the AP1000, have multiple systems, passive and active, in place for the highest possible level of safety. Vogtle 3 & 4, like all nuclear power plants, will produce baseload power that is carbon-free. Vogtle 1 & 2 is already the fourth largest generation resource in Georgia, and with the construction of Vogtle Units 3 & 4, Plant Vogtle will not only be the largest generation plant in Georgia, but also the largest source of carbon-free power in the United States. Vogtle Units 3 & 4 are expected to generate 715.8 million megawatt-hours and avoid more than 270.1 million metric tons of carbon dioxide through the initial licenses.<sup>5</sup> Plant Vogtle also prevents the release of other air pollutants such as nitrogen oxide and sulfur dioxide, which are precursors to acid rain and urban smog.

<sup>3</sup> U.S. Energy Information Administration, Forms 923 and 860.

<sup>4</sup> This takes into account the 2022 state weighted average emissions rate per kilowatt-hour (KWh), which was estimated at 0.81 lbs CO<sub>2</sub>e per KWh.

<sup>5</sup> This takes into account replacing Vogtle Units 3 & 4 with a natural gas combined-cycle plant. Emissions prevented are calculated using the average CO<sub>2</sub> emissions factor (118.857 lb/mmBTU), NGCC thermal heat rate (7000 BTU/kWh) resulting in 48.7 percent thermal efficiency, and Vogtle 3 & 4's projected generation.

## NATIONAL, STATE AND REGIONAL BENEFITS

NEI used the REMI E3+ model (version 3.0.1) to analyze economic and expenditure data provided by Georgia Power Company (GPC) to develop estimates of economic benefits from the construction and operations of Vogtle 3 & 4. More information on REMI can be found on page 12. The economic impacts of Vogtle 3 & 4 discussed in this section consist of the following variables that are used to analyze these impacts.

### Output

Output, in this context, refers to the economic activity generated by the construction or operations of Vogtle 3 & 4. The direct output is the economic activity produced by the facility. The secondary output is the value of the economic activity generated in other industries because of Vogtle 3 & 4, as well as how people employed at the facility influence the demand for goods and services within the region.

### Employment

Direct employment is the number of jobs at Vogtle 3 & 4, whether from construction or operations. Secondary employment is jobs in other industries as a result of Vogtle 3 & 4's construction.

### Gross state product

Both the construction and operations of Vogtle 3 & 4 contribute to Georgia's gross state product (GSP) and the United States' gross domestic product (GDP). The REMI model calculates these as the difference between value of goods and services produced by labor and property and the value of intermediate goods. For the construction phase, the final good is the construction of the nuclear reactor site, and the intermediate goods are the components purchased to build the reactor. For the operations phase, electricity is the final good, and the intermediate goods are the components purchased to make electricity. This study finds that during construction between 2009 and March 2023 (the latest data available for this report), Vogtle 3 & 4's construction generated over \$64.8 billion in economic output in the United States. During operations, Vogtle 3 & 4 will generate over \$425 million in long-term economic output in Georgia.

## STATE AND REGIONAL ECONOMIC EFFECTS FROM CONSTRUCTION

This study finds that during construction between 2009 and March 2023 (the latest data available for this report), the total economic output impact of the construction of Vogtle 3 & 4 on Georgia and the CSRA is estimated to be \$46.9 billion in direct and secondary economic impact. Vogtle 3 & 4's construction generated \$27.2 billion in total GDP impact in Georgia and the CSRA. Table 1 summarizes the plant's effects on the economies of Georgia, the CSRA and the rest of United States from 2009 to March 2023. Vogtle 3 & 4's construction has had substantial economic impact on other industries in Georgia and on the rest of the country. Vogtle 3 & 4's output also stimulates the state's and region's labor income and employment, supporting nearly 16,800 additional jobs on average annually from 2009 to 2023 in Georgia and the CSRA. Table 2 details the quantity and types of jobs that Vogtle 3 & 4 supports. Direct employees are included in the table's occupation categories.

## NATIONAL ECONOMIC EFFECTS FROM CONSTRUCTION

The total economic output impact of the construction of Vogtle 3 & 4 on the rest of the U.S. is estimated to be \$17.9 billion in direct and secondary economic impact. Vogtle 3 & 4 also contributed about \$9.8 billion to the U.S.'s GDP from 2009 to March 2023.

Table 1  
**ECONOMIC IMPACT ON GEORGIA & THE CSRA AND THE REST OF THE  
U.S. ECONOMY FROM VOGTLE 3 & 4'S CONSTRUCTION**  
(dollars in 2023 millions)

| Description                               | Direct and Secondary Economic Output |                          |
|-------------------------------------------|--------------------------------------|--------------------------|
|                                           | Annual Average                       | Total 2009 to March 2023 |
| <b>Georgia + CSRA</b>                     |                                      |                          |
| Output                                    | \$3,100                              | \$46,900                 |
| Gross State Product                       | \$1,800                              | \$27,200                 |
| <b>Rest of United States<sup>13</sup></b> |                                      |                          |
| Output                                    | \$1,200                              | \$17,900                 |
| Gross Domestic Product                    | \$650                                | \$9,800                  |

Table 2  
**JOBS IMPACTS IN GEORGIA AND THE CSRA FROM  
VOGTLE 3 & 4'S CONSTRUCTION**

| Category                                                                              | JOBS          |
|---------------------------------------------------------------------------------------|---------------|
| Construction                                                                          | 6,714         |
| Retail trade                                                                          | 1,603         |
| Management, scientific, and technical consulting services                             | 1,377         |
| State and Local Government                                                            | 1,338         |
| Food services and drinking places                                                     | 1,001         |
| Offices of health practitioners                                                       | 517           |
| Real estate                                                                           | 432           |
| Personal care services                                                                | 357           |
| Amusement and recreation industries                                                   | 304           |
| Wholesale trade                                                                       | 205           |
| Services to buildings and dwellings                                                   | 178           |
| Hospitals; private                                                                    | 174           |
| Religious organizations; Grantmaking, giving services & social advocacy organizations | 164           |
| Home health care services                                                             | 161           |
| Outpatient, laboratory, and other ambulatory care services                            | 148           |
| Other personal services                                                               | 140           |
| Employment services                                                                   | 130           |
| Automotive repair and maintenance                                                     | 110           |
| <b>Total Jobs</b>                                                                     | <b>16,757</b> |

## NATIONAL, STATE AND REGIONAL BENEFITS

### STATE AND REGIONAL ECONOMIC EFFECTS FROM OPERATIONS

The average annual economic output impact of the operations of Vogtle 3 & 4 on Georgia and the CSRA is estimated to be \$2.4 billion in direct and secondary economic impact. Vogtle 3 & 4 will contribute about \$1.6 billion to Georgia and the CSRA's GSP on average annually.

Table 3 summarizes the plant's effects on the economies of Georgia and the CSRA and the United States. Vogtle 3 & 4's operations will continue to have economic impact on other industries in Georgia and in the rest of the country. Vogtle 3 & 4's output also stimulates the state's and region's labor income and employment, supporting more than 800 permanent jobs on in Georgia and the CSRA.

Table 4 details the quantity and types of jobs that Vogtle 3 & 4 operations will support. Direct employees are included in the table's occupation categories.

### NATIONAL ECONOMIC EFFECTS FROM OPERATIONS

The average annual economic output impact of the operations of Vogtle 3 & 4 on the rest of the U.S. is estimated to be \$1.4 billion in direct and secondary economic impact. Vogtle 3 & 4 is also anticipated to contribute \$800 million to the U.S.'s GDP.

Table 3

### ECONOMIC IMPACT ON GEORGIA & THE CSRA AND THE REST OF THE U.S. ECONOMY FROM VOGTLE 3 & 4'S OPERATIONS

(dollars in 2023 millions)

| Description                               | Direct and Secondary Economic Output |
|-------------------------------------------|--------------------------------------|
| Annual Average                            |                                      |
| <b>Georgia + CSRA</b>                     |                                      |
| Output                                    | \$2,500                              |
| Gross State Product                       | \$1,600                              |
| <b>Rest of United States<sup>13</sup></b> |                                      |
| Output                                    | \$1,400                              |
| Gross Domestic Product                    | \$800                                |

Table 4

### JOBS IMPACTS ON GEORGIA & THE CSRA FROM VOGTLE 3 & 4'S OPERATIONS

| Category                                                  | GA + CSRA    |
|-----------------------------------------------------------|--------------|
| Electric power generation, transmission and distribution  | 803          |
| Construction                                              | 388          |
| State and Local Government                                | 376          |
| Retail trade                                              | 315          |
| Food services and drinking places                         | 197          |
| Management, scientific, and technical consulting services | 184          |
| Offices of health practitioners                           | 109          |
| Business and other support services                       | 94           |
| Real estate                                               | 90           |
| Personal care services                                    | 61           |
| Amusement and recreation industries                       | 52           |
| Wholesale trade                                           | 45           |
| Employment services                                       | 45           |
| Services to buildings and dwellings                       | 40           |
| Waste management and remediation services                 | 40           |
| Other industries                                          | 679          |
| <b>Total</b>                                              | <b>3,519</b> |



## COMMUNITY LEADERSHIP AND ENVIRONMENTAL PROTECTION

In addition to the economic benefits, Georgia Power Company contributes to the Burke County and the Central Savannah River Area in the form of jobs, income and economic output. GPC and its employees play a major role in the health and welfare of the community. Since its inception 120 years ago, the company, employees, and retirees have supported local community organizations and nonprofit agencies through financial support and volunteerism.

### WORKPLACE LEADERSHIP

#### Healthy Workplace

Recognizing GPC's efforts in employee experience and engagement, the company was honored with a 2019 Best Employers Award for Excellence in Health & Well-Being. The company received the award for providing one of the best workforce program offerings focusing on total health and well-being in the nation.

#### Veteran Hiring

Georgia Power recognizes the service and skills of veterans and has a long-standing tradition of being a military-friendly employer. Over 11 percent of Georgia Power new hires are veterans, and over 8.5 percent of the company workforce is comprised of veterans. At Vogtle Units 3 & 4, over one third of employees are veterans.<sup>6</sup> Veteran employees are encouraged to join the Military Veterans in Power (MVP) employee resource group, which is a dedicated resource for career support and development.

### ENVIRONMENTAL STEWARDSHIP

Generating clean energy is an important step in reducing the effects of climate change and vital to protecting the environment for current and future generations. Georgia Power Company has produced carbon-free nuclear energy for more than 50 years and is committed to doing its part to take care of the environment. GPC's commitment to the environment is demonstrated daily through transparency, reporting and compliance at all of its facilities, but also through company sustainability initiatives driven by its commitment to corporate responsibility.

Georgia Power Company's integrated resources plan recognizes the key role for GPC in supporting Georgia's citizens' and businesses' sustainability initiatives. GPC's investments of over \$5 billion in its fossil fuels facilities have decreased emissions of sulfur dioxide by more than 95 percent, nitrogen oxides by more than 90 percent and mercury by about 95 percent. GPC is pursuing the deployment of carbon-free energy, with the construction of Vogtle Units 3 & 4 being a prime example. The company is also committed to the deployment of electric vehicles and decarbonizing its fleet of cars, forklifts, and carts with hybrid and electric technology. Initiatives and partnerships have been established in energy efficiency and electric vehicles as well. Conservation programs are a key part of GPC's community engagement, through partnerships with the Keep Georgia Beautiful Foundation and Rivers Alive. Recycling plays a large role in reducing waste and all facilities participate in the recycling program. Each year, GPC recycles millions of pounds of plastic, paper, cardboard, metal and electronic waste.

<sup>6</sup> [https://www.northwestgeorgianews.com/rome/business/georgia-power-makes-effort-to-recruit-veterans/article\\_130738ee-38a8-11eb-8304-ef1886a296cb.html](https://www.northwestgeorgianews.com/rome/business/georgia-power-makes-effort-to-recruit-veterans/article_130738ee-38a8-11eb-8304-ef1886a296cb.html)



## COMMUNITY ENGAGEMENT AND OUTREACH

Community engagement is a pillar of Georgia Power Company's operations, from community grants and scholarships to volunteering to share time and talents. Throughout the operations of Vogtle Units 1 & 2, GPC has maintained a community engagement program, and with the construction process of Vogtle Units 3 & 4 new efforts were made to connect with and support the surrounding communities. Project employees, including those from from GPC, Southern Nuclear Company, Bechtel and labor union members, contribute both their time as volunteers and provide financial support to numerous organizations in the community:

### Neighborhood Renewal Program

The Neighborhood Renewal Program is an alliance between Plant Vogtle and the Burke County community that aims to improve the lives of those who live in Plant Vogtle's surrounding area. Since 2015, Georgia Power Company and the Georgia Power Foundation has funded more than \$275,000 towards the refurbishment of homes in the Shell Bluff community. More than 200 company volunteers have spent the last decade cleaning yards, building pump houses, rebuilding steps and painting in the community.

### Neighborhood Renewal Scholarship Fund

Since 2017, GPC has awarded 28 college scholarships to high school students in Burke County through the Neighborhood Renewal Scholarship Fund. These scholarships are renewable, meaning students can apply these funds across multiple years of schooling. When these last recipients complete 4 years of college, GPC will have contributed more than \$140,000 towards these students' college experiences. The scholarship was funded through the Georgia Power Foundation and Fluor Corporation.

### STEM Power Academy and the Mentoring a Girl in Construction (MAGIC) Program

Georgia Power Company supported programs to introduce young females to STEM and the construction industry and encourage our young female students to engage in programs/degrees in those areas. STEM Power Academy operated from 2014 through the summer of 2019, as an after-school-program for middle school girls to introduce them to STEM and hosted a week-long summer camp each year. The camp was hosted at Augusta Technical College, and had students from Burke and Richmond County schools. STEM Power Academy was funded through Georgia Power and Southern Nuclear. MAGIC (Mentoring A Girl In Construction) camp was supported through donations from Georgia Power Company and its employees, specifically female engineers, and construction workers from Richmond County Construction (RCC). MAGIC introduced high school female students to careers/opportunities in the construction industry. Students would participate in hands on activities to teach them about electrical, carpentry, masonry, and welding careers. The signature for MAGIC was each girl was given a pink hard hat.

### Burke County YMCA

Burke County community leaders identified a community meeting place as a valuable investment for residents to gather and grow together. In support of the community's needs, GPC funded more than \$670,000 for the construction of the YMCA of Burke County. The community recreation center opened to the community in the summer of 2019 and has received continued GPC support.



### Additional community involvement

Community impact has been realized not only through the creation of the aforementioned programing, but also through Georgia Power's employee-led volunteer group, Citizens of Georgia Power (CGP). CGP's member base and access to capital has been amplified as a product of the Vogtle 3&4 Construction project. Just as the CSRA communities have supported the Vogtle workforce with basic amenities such as housing, education, recreation and healthcare, so has the Vogtle workforce supported these communities through organizations serving the underserved, impoverished, those in need or without means. Over the course of the Vogtle 3&4 project, employees raised and donated over \$1M for local nonprofits and community organizations and spent over 50,000 hours volunteering their time, keeping in line with our culture of being a citizen wherever we serve.

Places like Ronald McDonald House charities and SafeHomes of Augusta were able to construct new facilities, Family YMCA and Wimberly House were able to expand their programming, Center for New Beginnings and Sons of Consolation were able to care for those with special needs, Golden Harvest Food Bank was able to provide food security over a 25 county area. Turn Back The Block, RISE Augusta and The Burn Foundation were all able to reach more families. Our volunteers built raised garden beds, hammock villages, handicap access ramps, nature walks and playgrounds. They provided Christmas gifts to children, painted houses and did landscaping. They served as student mentors and camp counselors. They were (and are) citizens wherever they serve.

### Toys for Tots Program

The Augusta Building Trades Council, North American Building Trades Union, Contractor, Company and Co-Owner partners have supported the Toys for Tots program for over ten years. In 2022 the Toys for Tots program supported over 40,000 children in the CSRA through toy donations and cash contributions from the supporting companies.

### Apprenticeship Readiness Program

In 2014 Georgia Power and the Augusta Building & Construction Trades Council began an Apprenticeship Readiness Program (ARP) to provide opportunities for residents within the CSRA to obtain career employment within the unionized segment of the construction industry. The new program focused on diversifying the construction industry by introducing women and minorities to trades and offering them experience in a variety of trades alongside lessons in math, blueprint reading and industrial safety.

## ECONOMIC IMPACT ANALYSIS METHODOLOGY

This analysis uses the REMI E3+ version 3.0.1 model to estimate the economic and fiscal impacts of the construction and operations of Alvin W. Vogtle Electric Generating Plant Units 3 & 4.

### REGIONAL ECONOMIC MODELS INC.

Regional Economic Models Inc. (REMI), headquartered in Amherst, Massachusetts, is a modeling firm specializing in services related to economic impacts and policy analysis. It provides software, support services, and issue-based expertise and consulting in almost every state, the District of Columbia, and other countries in North America, Europe, Latin America, the Middle East and Asia.

The REMI model has two main purposes: forecasting and analysis of alternatives. All models have a “baseline” forecast of the future of a regional economy at the county level. Using “policy variables,” in REMI terminology, provides scenarios based on different situations. The ability to model policy variables makes it a powerful tool for conveying the economic “story” behind policy. The model translates various considerations into understandable concepts like GDP and jobs.

REMI relies on data from public sources, including the Bureau of Economic Analysis, Bureau of Labor Statistics, Energy Information Administration and the Census Bureau. Forecasts for future macroeconomic conditions in REMI come from a combination of resources, which serve as the main framework for the software model needed to perform simulations.

### ENERGY, ENVIRONMENT & ECONOMY PLUS

REMI’s Economy, Energy, and Environment (E3+) is a computerized, multiregional, dynamic model of the states or other subnational units of the United States economy. E3+ relies on four quantitative methodologies to guide its approach to economic and energy modeling:

1. Input/output tabulation (IO)—IO models, sometimes called “social accounting matrices” (SAM), quantify the interrelation of industries and households in a computational sense. It models the flow of goods between firms in supply chains, wages paid to households, and final consumption by households, governments and the international market. These channels create the “multiplier” effect of \$1 going further.
2. Computable general equilibrium (CGE)—CGE modeling adds market concepts to the IO structure. This includes how IO structures evolve over time and how they respond to alternative policies. CGE incorporates concepts on markets for labor, housing, consumer goods, imports and the importance of competitiveness to fostering economic growth over time. Changing one of these will influence the others—for instance, a new knife factory would improve the labor market and then bring it to a head by increasing migration into the area, driving housing and rent prices higher, and inducing the market to create a new subdivision to return to “market clearing” conditions.
3. Econometrics—REMI uses statistical parameters and historical data to populate the numbers inside the IO and CGE portions. The estimation of the different parameters, elasticity terms and figures gives the strength of various responses. It also gives the “time-lags” from the beginning of a policy to the point where markets have had a chance to clear.
4. New economic geography—Economic geography provides REMI a sense of economies of scale and agglomeration. This is the quantification of the strength of clusters in an area and their influence on productivity in that sector. The concentrated labor in an area is specialized to serve companies, thus, their long-term productivity grows more quickly than that of smaller regions with no proclivity in that sector.
5. Construction and operations profiles – REMI provides prepared construction and operations profiles for a selection of energy technologies, including nuclear energy. These profiles distribute spending across 160 industries based on studies and data, including from the National Renewable Energy Laboratory and U.S. Energy Information Administration.

## CONCLUSION

### ECONOMIC AND EMPLOYMENT IMPACTS OF VOGTLE 3 & 4

#### Impacts of Construction

NEI's analysis finds that Vogtle Units 3 & 4 generated more than \$4.3 billion in average annual economic output in the United States during its construction. This includes over \$3.1 billion for Georgia and nearly \$1.2 billion for the rest of the United States.

Additionally, NEI's analysis finds that Vogtle 3 & 4 supported more than 37,900 jobs at peak construction, including approximately 9,000 workers at peak employment. Jobs impacts are spread across a variety of industries, as secondary impacts include personal spending impacts as a result of \$31 billion increase in disposable personal income in Georgia and the CSRA.

#### Impacts of Operations

NEI's analysis finds that Vogtle 3 & 4 will generate more than \$3.9 billion on average annually, with \$2.5 billion concentrated in Georgia and the CSRA. Both the GSP and the GDP will be impacted, with Georgia and the CSRA receiving \$1.6 billion and the rest of the U.S. receiving \$800 million.

Additionally, NEI's analysis finds that Vogtle 3 & 4 operations will support more than 7,900 direct and secondary jobs annually across the U.S. Of these, 3,500 will be in Georgia and the CSRA, including approximately 800 permanent direct jobs. Disposable personal income will increase in Georgia and the CSRA as a result of the operations of Vogtle 3 & 4, which generates job impacts across a variety of industries, such as construction, retail, restaurants, and technical consulting services.

### FURTHER BENEFITS OF VOGTLE 3&4

The expansion's economic benefits—from taxes and through wages and purchases of supplies and services—are considerable. In addition, plant employees and contractors further stimulate the local economy by purchasing goods and services from businesses around the area, supporting many small businesses in Georgia and elsewhere in the country.

Vogtle 3 & 4 will generate an estimated 715.8 million megawatt-hours of emission-free electricity through 2057 once operational, enough to serve the yearly needs for more than a million homes, all while avoiding 270.1 million metric tons of carbon emissions through the Units 3 & 4's initial licenses, and even more through the expected 60-to-80 year operating life. In addition to reducing emissions and maintaining air quality in the region, GPC and its 800 direct employees at Vogtle Units 3 & 4 continue to build on the strong legacy of volunteer service to the community and donations and funding to the local community and its citizens. The construction and operations of Vogtle Units 3 & 4 have vast economic, fiscal, environmental and social impacts within Georgia and has far-reaching economic impacts across the Southeast.



1201 F Street, NW, Suite 1100  
Washington, DC 20004

[nei.org](http://nei.org)